



DVD INSIDE



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Issue 227
Making the future since 1992

140
PAGES
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STATE OF THE ART

Great new gear reviewed

STARRING: Korg microStation & PS60 / Akai APC20
Yamaha S70XS / Roland Gaia / NI Maschine 1.5 / Demoon
Sontronics Saturn / Abbey Road RS124 / **AND MORE!**



Sasha / Four Tet

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PLUS iPad UK! What's it like for music makers?



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EDITORIAL

Editor

Daniel Griffiths, daniel.griffiths@futurenet.com

Art Editor

Phil Cheesbrough, phil.cheesbrough@futurenet.com

DVD Editor

Will Seelig, will.seelig@futurenet.com

Reviews/Features Editor

Chris Barker, chris.barker@futurenet.com

Production Assistant

Declan McGlynn, declan.mcglynn@futurenet.com

BIG THANKS TO...

Dave Bullock, Neil Owen, Gavin Roberts, Joby Sessions, Zen Dai, Dan 'JD73' Goldman, Oli Bell, Robbie Stamp, Bruce Aisher, Doug Kraul, Cormac Jordan, Martin Delaney, Roger Watson, Jono Buchanan, Stuart Bruce, Trevor Curwen, Danny Turner, Andy Ounsted, Greg Scarth, Marc '01'

Group Senior Editor: Julie Tolley

Group Art Director: Ian Miller

Creative Director: Robin Abbott

Design Director: Matthew Williams

Editorial Director: Jim Douglas

ADVERTISING

Senior Advertising Sales Manager: Matt King, mking@futurenet.co.uk

Advertising Sales Manager: Andrew Tilbury, atilbury@futurenet.co.uk

Account Manager: James L'Esteve, jlesteve@futurenet.co.uk

Sales Executive: Leon Stephens, lstephens@futurenet.co.uk

Advertising Sales Director: Claire Dove, cdove@futurenet.co.uk

MARKETING

Campaign Marketing Manager: Charlotte Pratten, cpratten@futurenet.co.uk

Promotions Executive: Madeleine Umpleby, mumpleby@futurenet.com

CIRCULATION

Trade Marketing Manager: Verity Travers, vtravers@futurenet.co.uk

Trade Marketing Director: Rachael Cock, rcock@futurenet.co.uk

PRINT & PRODUCTION

Production Co-ordinator: Ian Wardle, iwardle@futurenet.co.uk

Production Manager: Rose Griffiths, rgriffiths@futurenet.co.uk

Head of Production: Richard Mason, rmason@futurenet.co.uk

LICENSING

International Licensing Director: Tim Hudson, thudson@futurenet.co.uk

Tel: +44 (0)1225 442244 Fax: +44 (0)1225 732275

FUTURE PUBLISHING LIMITED

Publisher: Rob Last, rlast@futurenet.co.uk

Publishing Director: Mia Walter, mwalter@futurenet.co.uk

Chief Operating Officer: Simon Wear

Chief Executive: Robert Price

SUBSCRIPTIONS

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Chief Executive: Stevie Spring
Non-executive Chairman: Roger Parry
Group Finance Director: John Bowman
Tel +44 (0)20 7042 4000 (London)
Tel +44 (0)1225 442244 (Bath)

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Welcome

Don't Fear The Gear



You wait around for ages for an amazing new piece of studio gear... Then 15 of them come at once! Yes, it's been quite the month for reviews this month, with *FM* dishing out Platinum Awards left and right for new keyboards, software and studio gear. Even if you're in love with your current studio, you owe it to your music to

check out what the latest kit can do. And fortunately, *FM* makes it easy. Remember, we're the only mag that lets you hear our review kit in action on our DVD. Meanwhile, back in the mag there was so much of the stuff that we've treated you to eight extra pages. So it's official: we're fatter and better than any other production magazine.

Artist-wise we got up close with three stars this month. There's Sasha in LA (page 24), then *In The Studio With* US House star Morgan Page (page 44) and back home again for a session with Four Tet on page 58. Do not miss over two hours of Page & Tet on video on our DVD!

Special mention to this month's major studio feature. *Parallel Processing* might not sound like the amazing mix solution that you've been waiting for but we guarantee the tips you learn (starting on page 34) will be a major part of your workflow from here on in.

And remember to keep up to speed day to day with *FM* via our Twitter. Follow FutureMusicMag and be part of it!

Daniel

Daniel Griffiths, Editor
daniel.griffiths@futurenet.com

EXPERT CONTRIBUTORS THIS MONTH...

Marco Migliari
engineer, producer



Studio mater Marco opened our eyes to the incredible world of *Parallel Processing* this month in our big feature on page 34.

We're currently engaged in a test to see just how many channels you can split sleigh bells into.

Robbie Stamp
engineer, producer



As well as stumping up a mighty portion of DVD's new sound samples this month, Robbie sprang to mind for checking out

Roland's new 'back to the future' Gaia synth. It's pronounced 'Guy-a' by the way. That's that cleared up.

Jono Buchanan
artist, producer



Jono took delivery of a mighty box from Japan this month containing the first finished models of Korg's latest keys. Get his expert

verdicts on their new microStation and PS60 on pages 78 and 84.

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FutureMusic®

Technique and technology for making music

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Full Access

From **p24** Backstage with Sasha and *In The Studio With Four Tet*



Packed DVD

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An enormous selection of exclusive reviews and features

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FMDVD

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INSIDE STORY



DVD Editor Will Seelig's inside track on the making of FM's DVD



This month's highlight was a first for a couple of reasons. Having gone to LA to interview Morgan Page, he kindly took us on a tour of the major sites in this famous city. These included a stop at the infamous Oinkster burger bar, where we were introduced to a heart-stopping burger. Having survived this arterial assault, we were then taken to see the Hollywood sign and the Griffith observatory – a trek that almost proved too much for the FM team!

Enjoy the FM DVD?
Want to see your favourite artist on video? Then email us at fmdvd@futurenet.co.uk



DVD HIGHLIGHTS

Parallel Processing

Treating your dry and wet sounds separately can offer incredible flexibility. Hear the results of our huge in-depth feature on this month's DVD

From the Vaults: Soundtracks

800 This month, our archive visit has brought up a real treat, with 12 NI Kontakt instruments and eight construction kits.

Hear the Gear

Listen to our audio examples on the DVD, featuring thirteen different bits of kit from our biggest review section ever

Cubase, Logic & Live

This month's technique section offers audio and video tutorials for the leading DAWs.

PLUS OUR SPECIAL BONUS SAMPLES COURTESY OF

Sounds/To/Sample

200+ demo sounds for you to use and enjoy. If you like what's here then bag the full collections from soundstosample.com. They're instantly downloadable online!

S2S GLITCH & TWIST VOCALS



"Daft Vocoders, Glitched Vox FX, Nu Noise Choirs, Twisted Spoken Clips and Pseudo-Melodies in this 150+ strong collection of all-new royalty free vocal loops at 125 and 128bpm."

S2S TECH-HOUSE RHYTHMS



"Here at S2S we understand the importance of beats. In Tech-House Rhythms S2S and SM founder and beatmaker extraordinaire Sharooz returns to dish up 70 bang-up-to-the-nanosecond beats from his own personal library."

FATLOUD – DUST



"The latest release in FatLoud's XL Series, featuring 1.5GB of dusty old-school vinyl loops impeccably programmed, mixed and mastered to pack a new school punch that is warm, wide, deep and solid. Brimming with more than 320 loops and samples."

BEST SERVICE – K-SIZE FX EDITION



"After the floor-rocking, best-selling K-Size Minimal and Tech House Editions comes the eagerly anticipated FX Edition – featuring a massive 1,400 high-end drops, sweeps, fills, impacts, atmospheres – and 300 all-new kick-free tops."

Sample Techniques

Each month, our sample creators work tirelessly to bring you original content for use in your music. As always, they go that extra step to make sure that the samples are both unique and usable...



Stompbox Ordering

"A stompbox chain can be an art form in itself and a little experimentation with the order can radically enhance the range of possible tones. Like so many aspects of audio production, the order of the chain can be a highly personal affair, but there are some basic considerations that are universal. Effects that use dynamic range as their trigger (i.e. envelope filters and envelope phasers) will have reduced effect if proceeding a distortion, compressor or other gain range reducing device."

"Any kind of noise gate should come at the end of the chain, but before any delay if possible as they can cut off the decays prematurely. The order between delays and modulations/sweeping filters is always worth experimenting with, as each combination will have its own unique response. Don't get habitual and keep the chain fresh as you never know what you might be missing."



GEAR USED



Noise Boxes
Groove Criminals
use: '80s/'90s
sample discs

"To keep the Rave beats authentically '90s breakbeat-heavy we dug to the bottom of the storage cupboard and retrieved our stack of original Akai discs for our S01 sampler. These were then sampled in, cut up and recycled before being layered with additional drum programming."



Trance
Cyclick Samples
use: Korg
Kaoss Pad 2

"This simple effects unit has found its way into every nook of the recording world, including being modified to fit into guitars. This month it has proved very successful for dramatically altering the character of guitar loops/riffs – MIDI sync'd delays and modulation, ring modulation, mute cuts and all manner of dirtiness – love it."



THE MAKING OF YOUR UNIQUE FM SAMPLES...

Ready to Rawk

Add a little hair and Denim to your tracks

This month's samples have two very different flavours. Groove Criminals looked back to the 1990's to bring you a complete Ravers sample set. If you want those classic piano samples or drum loops, then this really is the definitive collection. Meanwhile, Cyclick Samples was looking even further into the past with his collection of '60s/'70s-inspired samples. To get a better idea of what they were creating *FM* caught up with Cyclick backstage at his studio. "The 'Rock Toolkit' has been created to provide a collection of elements to sprinkle a little RAWK on any track, whatever the genre, and are broken

down into different sections: Hairy Rock intros and late '60s/early '70s Rock loops that are crying out for a Hip Hop setting.

"Drum and rhythm guitar parts are available singly and mixed and there's some lead parts too.

"Kaoss 'n' Dig Riffs is a collection of guitar riff loops processed through a Kaoss Pad and digital plug-in effects, taking them straight to the 'next stage' of guitar loop sampling. Loops, Rock guitar riffs in three tempos and a selection of keys also form the basis of the 'Kaoss 'n' Dig Riffs' samples. The final element to Cyclick's collection

is the Solo Loops, a selection of guitar solo snippets in four tempos and three keys. Like the 'Riff Loops',

these will suit standard looping but chopping them up, using filter sweeps and modulating them like crazy is where it's at – get creative!"

1,000
samples

Instruments

"There are two Kontakt instruments included here. The 'Hairy Chord' instrument offers five classic Rock chord shapes, with each chord assigned to an octave each and the Solo Picker, which is a velocity-layered patch that provides an '80s-style lead guitar."

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Studiofile 16 This month we're off the the legendary Steelworks Studios in Sheffield for a bit of nostalgia.

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Pimp OSCar!

No matter how good software synths get, you can't beat a bit of hands-on control...

When a picture of Underworld playing with this custom made creation was spotted online, *FM* went on a mission to track it down.

We're massive fans of GForce's impOSCar and it turns out the guys were using this custom controller to control their new impOSCar2 software plug-in live.

Built by Mario Jurisch, who regularly puts together his own custom controllers for soft synths, this one off design is exactly the kind of thing we'd love to see go in to full production. So what gives?

FM: Your ImpOSCar controller looks amazing!

MJ: "It was easy to make. I sent Dave Spiers at GMedia a picture of a controller I'd made. He loved

it and asked if I would build a controller for GForce. We decided that one for their new impOSCar2 would work best. The original plan was to have a four-octave keyboard so I began the layout of the front panel and the dimensions based on this. Then, a little while after I started to build the case, Dave told me that they wanted a desktop version, because they wanted to use their own keyboards. So that's why the controller ended up so big!"

How much did it cost to build?

"That's a secret. You'll need to ask Dave Spiers and maybe he'll tell you. [*We did. He didn't.*] The price for the parts is not a secret. It cost about 800 Euros to buy all the parts."

What else are you building? We've seen a Jupiter 8 controller you're working on already...

"I'm going to build my own impOSCar2 keyboard controller because I had serious tears my eyes when I sent the finished one to GForce! I've stopped the Jupiter 8 project, because, there are not enough MIDI learn functions in Arturia's JP8V software for all knobs and switches. I don't like dummy controls.

"All knobs and switches must work! I've told Arturia so we'll see. The goal is always to have a controller that looks and feels like an original hardware instrument, without using a mouse or monitor. My dream is to build a Yamaha CS-80 controller in a 1:1 scale. Maybe this year..."

Will these go ever go on sale?

"I don't know as right now it's my hobby. I suppose it depends on who wants one and which controller it is. The main thing is that I like the controller and the software and have fun doing it." **FM**

WANT TO KNOW MORE?

Check out more of Mario Jurisch's amazing work at his website synth-project.de



iPad Music Hits UK

What does the iPad mean for Future Music makers?

Well, we've got one and we can honestly say that the iPad has the potential to shake up music making big time.

It's all down to the apps of course and the new wave of music apps which take full advantage of the iPad's large and responsive 9.7 inch touchscreen are already a class above the excellent music apps already available for iPhone and iPod.

But let's talk about the device itself. Having gawped at countless pictures at it prior to taking delivery the actual device appears rather smaller than you imagined in the flesh. But that's no bad thing, as after a minute of use it's hard to imagine it being a single millimetre larger.

Another pleasing surprise is that the large frame around the screen

– that's we'd previously thought of as excessive and ugly – simply melts away once you start using it.

It's also rather weightier than we thought but this sense of 'mass' to gives a feeling of quality and solidity. Yes, a three-hour set with one held aloft would be tiring but that's what they invented tables for. Speaking of which the slightly curved back has just enough flat surface that it can be placed flat and the screen prodded without any rocking or spinning. They've thought of everything.

Screen brightness kicks ass – at full levels it's too bright in our bright sunny office – yet we're still averaging out ten hours of battery life. As for one app being 'hungrier' than another we're not noticing any difference but WiFi does suck a little harder than the non-networked apps.

The in-built speaker is impressive too. Interestingly it seems to use the spare air inside that curved back surface as a bass port so you can feel it vibrating with the sound seemingly coming from 'within' the machine rather than out of the tiny edge slot.

The biggest gripe is that – as ever – it's a totally locked down Apple product. If you can't get by without taking your gear apart or force-feeding it illegal shady apps then forget it. If, on the other hand, you're happy effortlessly watching a series of increasingly impressive music apps pop up with tempting, bargain-priced 'buy me' buttons then this is going to be hard to resist.

WANT TO KNOW MORE?

Don't miss our full iPad music app round up next month! FM228 on sale 16th June.

Diary

Events, festivals and gigs...

Sinden

When: 4 June
Where: Snafu, Aberdeen
myspace.com/gaemesinden

Fenech Soler

When: 5 June
Where: Koko, London
koko.uk.com

Bingo Players

When: 5 June
Where: Ministry Of Sound, London
myspace.com/bingoplayers

Julian Cope

When: 7 June
Where: Thekla, Bristol
theklabristol.co.uk

Example

When: 7 June
Where: Digital, Brighton
myspace.com/leadingbyexample

Grum

When: 9 June
Where: Bugged Out, Bristol
myspace.com/grummusic

Rockness

When: 11 June
Where: Does, Inverness
rockness.co.uk

Scuba

When: 12 June
Where: Heavyweight, Newcastle
myspace.com/paulhotflush

Sven Vath

When: 19 June
Where: Matter, London
matterlondon.com

Bart B More

When: 19 June
Where: Pacha, London
pachalondon.com

Kode9

When: 25 June
Where: Coronet, London
myspace.com/kode9

Riva Starr

When: 26 June
Where: Mint, Belfast
myspace.com/rivastarr

Joris Voorn

When: 26 June
Where: Ministry Of Sound, London
ministryofsound.com

HOT IPAD MUSIC APPS



Korg iElectrube R

It's a full, virtual version of Korg's hardware drum synth the Electrube R. It sounds the same and the iPad's multi-touch lets you tweak and input beats simultaneously.



Synth for iPad

OK, it sounds a little weak but there's some decent presets buried in there. This is very much a first out of the gate product and we expect many more new synths to follow.



Studio Track

This is amazing: a full eight track recording studio in your iPad. It's even got tempo-synched delay, compressor, parametric EQ and reverb! OMG!



AC-7 Pro

Check this out. WiFi touch control for Pro Tools or Logic... the dream is a reality via this cheap app. Find out if it actually works in our full review next issue.



Mixr

DJs are going to be well catered for too, it seems, with the iPads touch surface being ideal for replicating jog wheels or even full vinyl turntables. Lots more information next month!

London Music Show 2010

The biggest music show in the UK is now in the safest hands in the business. Do not miss it

Doing anything on the 8th to the 10th of October? We certainly are. We'll be at the UK's premier music show, now being run by Future Publishing, the folk that make *Future Music*, *Computer Music*, *Guitarist*, *Rhythm*, *MusicRadar.com* and countless more music brands.

The 2009 show attracted over 22,000 musicians, engineers and producers from every ability level and musical genre. And with us running

the show we're all set to bust that figure wide open.

The big news is that *Future Music* and *Computer Music* will be running our very own Sound and Recording Technology Zone. There'll be presentations on stage across all three days of the show, aimed at giving *FM* readers the knowledge they love, from tutorials on your first loop-based production to advanced mastering techniques for pros. And keep your eyes peeled for celebrity guests too.

Meanwhile over in the *Guitarist* Zone you can expect the staff of *Guitarist*, *Total Guitar* and *Guitar Techniques* to be doing likewise. And drummers get their own section, hosted by *Rhythm* magazine. Plus we've got the industry's finest manufacturers on board with hundreds of exhibitors demonstrating thousands of products.

The show all kicks off on Friday the 8th October at 10am, running until 6pm, while on Saturday the 9th,

and Sunday the 10th the show runs from 10am til 5pm.

It's all taking place at London's immaculate ExCel exhibition centre nestling in their famous docklands.

Tickets go on sale soon so check out londonmusicshow.com to register your interest. See you there!

WANT TO KNOW MORE?

Head to londonmusicshow.com for the latest ticket info, or follow the show on Twitter at twitter.com/LondonMusicShow





The Future of the DAW?

Ohm releases a new music creation package that allows multiple users to collaborate online in real-time. Let us at it!

There have been online collaboration services and applications before, but with somewhat limited success. Now the whizzkids at Ohm software have released their own standalone DAW that also focuses on building an online, collaborative community.

Unlike any other online, Java- or Flash-built software, Ohm Studio is a fully-fledged installed DAW. Using their server, Ohm enable users to search for musicians registered in the online community and add them to their session and collaborate instantly in real-time. For example, someone using Ohm studio in the UK can play a

synth while another user in the USA tweaks the filters of that synth, in real-time.

Ohm told us they were keen to point out that this software was not aimed as a piece of software for jamming, but rather a piece of software focused on production. There's also a versioning feature enabling users to revert back to recall different stages of the project, all stored on the cloud. So if the project swerves in a bad direction it's easy to jump back using this giant undo-style history. There's no information on an exact price yet, but we're told it will be in keeping with their tradition of great value software. Hurray! ohmstudio.com

Fabulous Focal Go Mini

The new CMS 40 monitors from Focal professional are the most compact speakers Focal have ever produced. With a four-inch woofer housed in the acoustically treated powder coated aluminium shell, these look the business. Still using the same tweeter as the larger CMS 50 and CMS 65 range, these monitors also come complete with HF and LF shelving on the rear of each speaker, so you can neatly tweak the set to your own environment. Focal seem to be pitching these as a second set of speakers for mix-checking or audio to picture in the broadcast market and they claim to deliver an extended bass frequency beyond what their size may suggest. Full reviews of these coming soon in *FM* so stay tuned. scvlondon.co.uk



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Right now you'll find the full *In The Studio With* videos from Chris Lake, Dave Spoon, Stonebridge and D.Ramirez with plenty more stars from the past (and not so past) issues of *FM* to follow soon after. Make sure you keep checking back as we'll be

updating it as fast as we can upload the video. In fact, why not subscribe to the channel and be automatically told each time a new video goes live?

In addition to the *In The Studio With* there's exclusive kit demos including James from the Freemasons demonstrating Native Instrument's Maschine and House producer Sharooz going to town with his 909 and 303. Go check it out now!

WANT TO KNOW MORE?

For the full *FM* cyber experience you can find us at youtube.com/futuremusicmagazine, our blog at futuremusic.co.uk and follow us daily at twitter.com/futuremusicmag

In The Clouds

The new Cloud active and passive JRS-34 mics are on the way from Unity Audio in the UK. Beautifully handcrafted and designed in the old-school styling's of other classic ribbon mics, this is set to be an impressive pair of mics.

The active model means that users without a huge amount of gain on certain audio



interface pre amps will still benefit from the vintage ribbon sound.

Hand built in the USA doesn't come cheap though. Expect to pay around £1200 for the JRS-34 passive and £1462 for the active version. We'll see if these mics are as good as they look in a full review soon. unityaudio.co.uk



Rare Creation

Right now it's worth heading over to the xils-lab website and checking out the demo of this great new polyphonic subtractive synthesiser.

The PolyKB is based around two waveform morphing, aliasing free oscillators and a self oscillating 4-pole low-pass filter. The unique thing about the RSF original was the continuously modulated waveform, while Xils-lab calls a sort of "modulated waveform morphing".

There's a dongle free demo out now and the full synth can be bought for 149Euros. And there'll be the full verdict in *FM* next issue. xils-lab.com

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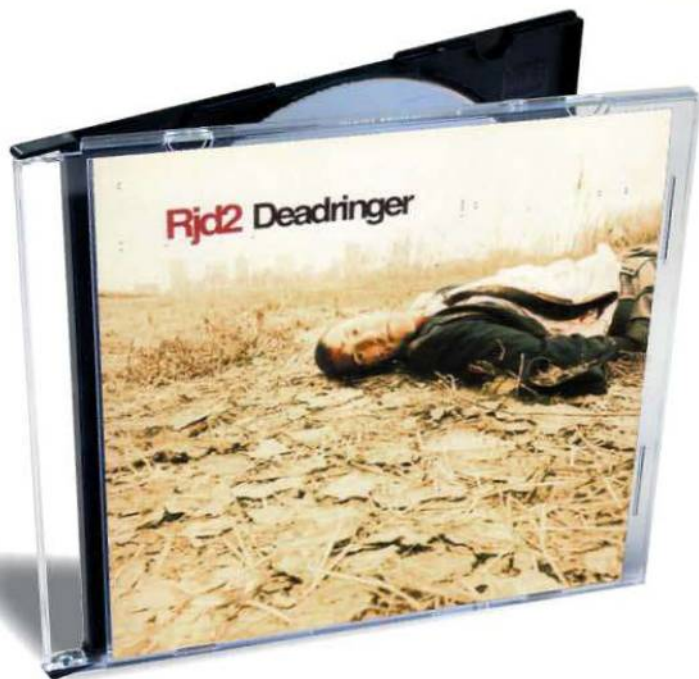


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RJD2 Deadringer

Definitive Jux, 2002

A part-time bank teller, living in his friend's attic, turned one sampler and a bunch of records into a landmark album. **Roy Spencer** investigates...



The bare bones of *Deadringer* might have been a collection of samples and a sampler, but so much more

went into the project's conception than meets the ear on early listens.

As a DJ first, RJD2 brought that mindset to production proceedings. Monotony was outlawed, as if the fear

of losing a crowd in a club was a rule of thumb that governed his approach to making beats. So, tempos rise and fall, song length differs wildly, and vocal presence shifts between spoken-word dialogue, homemade acapellas lifted from records, and contributions from local rappers. His trusty Akai MPC2000, the workhorse

from the tiny number of technological elements that provided the tools, was approached with the accuracy of a scientist. As an instrument, it was drained of every last drop of creativity available. Drum chopping became an art form. Milliseconds remaining on the tail end of sampled bars became the mortar holding the swing together in the brickwork of the tracks.

Lofty ideals

It was predominantly made in a friend's attic space, which doubled as his bedroom at the time, in-between his job behind the counter at a bank in his hometown of Columbus, Ohio.

He crafted each beat after work. The driving force to contribute something simply dope, to a Hip Hop music scene he followed with fanatical devotion, meant his standards were already set high.

In the year it took him to put the album together, he'd achieved something that somehow had the tone, feel and organic juices of the vintage records that were the vital backbone of Rap music.

It was RJD2's mission to sound like the Funk records he dug. He strove for his chopped drums to have the feel of the classic pockets of groove on the dusty 45" records prized in his collection, a fact hinted at in the CD's inlay cover. Check it to see a letter from the managers of the apartment he moved into explaining that another resident had taken objection to his playing of the drums too loud. "Drums?!" he thought at the time. "I was like, 'wow, someone actually thought that was a drummer?! That's awesome!' It was me on my sampler, but that's actually what I wanted people to think."

Blazing the dusty trail

The album was 'got' by fans and critics worldwide. It's widely regarded as the album DJ Shadow should have made next after the sampler symphonics he laid down in *Endtroducing* were never lived up to.

"It's funny," says RJD2. "Most of the album was done in this reckless abandonment mind state. It wasn't like I didn't care. But a lot of it was done with caution to the wind. At the time you don't think it's trailblazing. It's just 'fuck it, let's get the record done.' I had no idea it would take on this classic status. It was just me, a sampler and a bunch of records." But, as we shall see, that humble

description barely scratches the surface of the vinyl alchemy that was at work behind the scenes...

Track by track with RJD2

The Horror

"It was important for me to have the first thing that people ever hear of me on a record to be jarring. That's why it starts with the big horn stabs. I didn't want to dance around with any pussyfooting. It was important for me that it should feel like a punch to the balls right off the bat.

"It's really kind of a primitive song when you strip back the elements. There wasn't really a whole lot to it. It's just introducing sounds, and taking them away. It works though, and was the intro I wanted."

Salud

"I wanted this to sound like a tone, with an LFO modulating the frequencies. I wanted it to sound like a filter sweep. Like an ocean wash. What I use is a tiny, tiny snippet, maybe a coupla milliseconds, of a tone with the root note of the key of the song.

"The sampler is being triggered really fast, with the attack and decay shaved off, so you don't hear any of the transients, and it ends up with a really long tone. In the MPC I'm using the modulation slider to affect the filter level, going up and down."

Smoke & Mirrors

"I've never told anybody this...ever. Not all the acapella sounds that appear on *Deadringer* are true quote/unquote 'acapellas'. Here they had guitar stabs over them, which I employed certain techniques to hide.

"Certain elements I removed with EQ, but other things that were rhythmic, that happen right on top of a word, I couldn't chop out. What I did, to trick the mind, was find a passage of the record that had the guitar on it without the vocal, and take a coupla stabs and make a melody out of them.

"I layered it under the vocal. So when the guitar noise appears in the song it's the same one as in the acapella, which hides it."

Good Times Roll (Part 2)

"The original Part 1 had much more of a vocal thing. The label were

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DJ Shadow

Endtroducing

The birth of the new wave of dusty-fingered record geeks/bedroom sample-slayers as producers.

ADD THESE TO YOUR PLAYLIST:

Number Song; Organ Donor



De La Soul

3 Feet High and Rising

The album that got a generation digging outside the rare Funk crates, and into the Dollar bins.

ADD THESE TO YOUR PLAYLIST:

Jenita Taught Me (Derwin's Revenge); Say No Go



RJD2

The Colossus

RJ's forth album from January 2010, shows us that no magic has been lost and new skills have been found.

ADD THESE TO YOUR PLAYLIST:

Let There Be Horns; Salud 2



Cut Chemist

The Audience's Listening

Breakout solo outing from LA Rap throwbacks Jurassic 5's main beat conductor and DJ. Sampling innovations, hilarious turntablist tracks and fierce Rap guests as standard.

ADD THESE TO YOUR PLAYLIST:

Spot; What's the Altitude?



Blockhead

Uncle Tony's Coloring Book

Producer on Aesop Rock's debut Def Jux LP, killing it with the kooky samples right about now. Nice to see another producer blossom like a day-glo flower.

ADD THESE TO YOUR PLAYLIST:

Squirmy Worm; NYC Bounce

In the Studio with... RJD2

"I was working in a bank and making the album at the same time, before getting my own place and going full time on it. The studio I began it in was just in my bedroom in a friend's attic.

"That whole record was done with an Akai MPC2000 and records. I had a Farfisa professional piano, which I used on maybe one song. The guy I lived with had a Kurzweil keyboard that I used for a particular sound. Besides that it was the MPC, and a Behringer 24-track board and one Alesis eight-track ADAT machine.

And I'll tell you, I thought I was just rolling in gear!

"It was a huge deal to get one ADAT machine. In

hindsight, it's hilarious. In the studio world they're kinda looked on as an aberration of recording

history, or whatever...it was a big deal for me. I also had a little outboard effects unit and a DAT machine.

"I'd try and sync the MPC to the ADAT machine, and it wouldn't sync properly, giving you this delay. Then dump down eight tracks of instrumentation. For mixing, I'd assign another eight tracks out of the MPC. If it all synced up properly I could work on a mix on this little Behringer board, with an effects unit for reverb...no compression or anything like that. And when I got it right, I'd run it down to DAT tape."



worried about clearing the sample, and wanted me to change it, so I ended up with this version. It has nothing in the vocals now that allude to 'letting the good times roll'.

"I remember the biggest thing about this song was the decision of where to place it. At the time it was this song that was going to distance the album from being a quote/unquote 'Underground Hip Hop' record. This was a point in the album where most people would come slower and cerebral. I was like 'fuck that!' and kept the pace up. I was coming from a DJ perspective."

Ghostwriter

"This song just sat for ages. It was on the original demo when I was trying to get a deal. The interesting thing is, everyone thought of it as a filler song. Nobody thought it was anything like a highlight of the record. But out of anything, by far, it's been the most commercially successful song I've ever done, by leaps and bounds. I remember touring France by myself before the album came out. I had test pressings of it. I played this in France, in a lesbian bar in Paris, and it went over like Gangbusters! I was like 'what the fuck?!'"

F.H.H.

"At this point I was aware that if the listener was just a fan of Rap they might consider tuning this record out here. So I wanted to bring some Hip Hop back in. So we have rapper Jakki da Motamouth on here.

"I thought three guest appearances was just about right for the record. This and *Final Frontier* were the most straightforward Rap songs. At that time, the only way I knew how to record a Rap song was to send someone a beat, ask them if they liked it, and get them to rap on it in their bedroom and boom, it was all done."

“Preferably I wanted there to be as many vocals as possible, be it rapping, singing or spoken word”

Shot In The Dark

"I didn't feel it was necessary that someone was singing in key, via a sample, or

Final Frontier

"You want nerdy? A very common thing I would do is take a drum break that was 80bpm, with a straight division of rhythms. I would chop them into eighth note pieces, so the first one is just 'boom', a kick. But the second piece, the hi-hat, has the leftover of the end of the kick sound on the upbeat. And if you leave that in there you have eight pieces with end tails on them.

"If you play it at a faster tempo, like 95bpm, but leave the samples the same size, what happens is that you end up getting a swing to it. I would use that technique all the time on this album."

Cut Out To FL

"I tried to take a very kaleidoscopic approach to this record. Some fast things, slow things, happy and sad things. At the same time I wanted to provide that same variation in the song structures. So some things were tight and concise like a Pop song, and others were a bit more meandering and relaxed, and other things sounded like snippets.

"The number one driving force behind the album was not to make it boring. At no point is the listener going to be bored. And if they didn't like something, something else would be coming along. That's something I've applied to my whole career."

rapping all the time, but a vocal presence of some sort was important. What I didn't want to do was make an instrumental album.

"If at any point there was six minutes or more of just beats, that was bad. Preferably I wanted there to be as many vocals as possible, be it rapping, singing or spoken word. They all provide the same function in a song. Using spoken word added that kaleidoscopic edge."

Chicken-Bone Circuit

"We were dissolving into traditional Hip Hop tempo by this point, so I had to break that monotony up. A lot of that stuff is dictated to what you find

on a record. What drew me to the sampling thing is that you didn't know what you would find. It's not like you'd try and recreate one particular thing. For me it was like, 'what's out there?'

"To a certain degree you're along for the ride. It's like watching an illustrated novel unfold, but you're turning the page. You're not in control. You're pushing it along, but the concept is out of your hands. It's a fascinating process."

The Proxy

"Again, short. It was the kind of thing where you start with the meat of the song. Begin by making the part that would end up being the main point of the track. Then you work backwards to make an intro and the rest."

"What happens sometimes is that you start making a track and all you get in a minute and change from a track and that's it."

"This might sound like mystical bullshit, but intuition manifests itself as little voices in the back of your head. A lot of times, the goal of making music is accessing that little voice that's in the back of your head. This song did what it wanted and got as far as it wanted to go."

2 More Dead

"It's just a conglomeration of a bunch of old Soul 45" records, really. For me, records were purely sample

odds of sampling off them is much higher. The odds that the expensive record will be better? Yes, highly likely. It will be better music. But I don't give a fuck about better music. I'm just looking for a little snippet that I can use in a song."

"That informed all my record buying. It was sheer bulk [laughs]. I would hit the Dollar bins in shops in Columbus every day at the height of making *Deadringer*."

Take The Pictures Off

"That was another snippet record that was meant to be a teaser for rappers to see if they'd work with me, that I turned into a full song. It had scratching or spoken words on it, so they couldn't use it right away. So they'd have to call me to use it. I'd be like, 'hey, Mos Def', or whatever, 'call me for this beat!'

"I'm a big fan of skits anyway, the Prince Paul stuff on De La Soul, oh yeah. They're funny the first time. I didn't want to go overboard though. This was also my weirdo take on that type of stuff."

Silver Fox

"I remember songs like *Good Times* came together very cleanly. But songs like this were messy. Sometimes two sounds don't play together nice, they don't function."

"I remember there were EQ issues, dissonance and frequency

Daily Operation: The RJD2 work plan

"At the point I quit the bank, got my own place, and finished up doing the album full time, I would wake up around nine or ten, make some coffee and turn on the sampler. A critical thing was that at the time the Sega Dreamcast games console was out. This is going to sound funny, but it was an indispensable part of making the album. I'm not the kind of person

that can sit there for hours making beats. I'd have the Dreamcast on one side of the room and the sampler on the other. Maybe I'd do 45 minutes on the sampler and play a game for a bit. It might sound lazy, but it was pure genius that I came up with this methodology. Honestly, I would not have done the album without that. It comes from a magazine interview I read with Hip

Hop producers, the Beatnuts. They were asked the crucial question, 'how do you decide between what is good and bad?' And they said 'we get away from the sampler, smoke a blunt, or drink a beer, and get it out of our mind. When we come back with fresh ears we decide right there if we like it.' So, that working method became very productive."

"I'd work till three, then go out and hit up the bargain bins in local record shops like Gold Mine, Used Kids and maybe House O' Music. The first two provided 85% of the material for the album. Then I'd come home, work, eat some food, and work and play til midnight."



Console yourself. Sega Dreamcast: perfect for downtime

June

"This was the first single off of the album. The label chose it, but I wasn't completely sold on the idea of making it the first one that people were going to hear. It was more straightforward Rap than the album as a whole. This was the first time I

was part of a label's marketing plan. It made sense for them to run with a Rap song first."

"I formatted the album in a way that I thought

it should have been released and the way that it should have been heard. And this song was near the end of the record. But, whatever."

"At the time, I remember thinking that people would think I was just a Rap producer."

Work

"I felt it wrapped up the album, on a mildly sombre note. There was some fast stuff and jarring stuff on the record. So ending on this tone was fine."

"The original sample is in a major key, and if I layered it with other majors it would sound fruity and have no urgency to it. So to get some edge, I thought 'what if I ignored the major chords, and used their relative minor chords over it?' So the bassline would end up functioning like the third of the chord, and if you EQ it right, it wouldn't clash, but sound like the harmonic content of the chord. That was me really thinking hard about using samples." **FM**

WANT TO KNOW MORE?

Check out RJ's official website for more release info and discographies: rjselectricalconnections.com

I would hit the dollar bins in shops in Columbus every day at the height of *Deadringer*

fodder. I don't really consider myself a record collector for the sake of collecting. I buy them to sample.

"If I could go to a record fair and pick up ten three Dollar records, rather than one thirty Dollar one, I'm much better off with the bulk. The

problems. Also the shaker was a live sample of me, and I didn't have a click track [laughs], so I was just playing the shaker to an imaginary tempo in my head. I might have chopped that up to fix it, so it was all a bit messy."

NEED TO KNOW

Five essential facts about...

RJD2 and *Deadringer*

1 "I forfeited most of my twenties for my career. It took a long time to work out how to have a social life and have friends outside music."

2 "There's a hidden bonus track at the end called *Here's What's Left*."

3 "I shopped the original demos of this album to about twenty-five labels, before joining Definitive Jux."

4 "The album happened over a period of time. It was a piecemeal process. It was a culmination of a year's worth of work."

5 "I got all the ownership for my previous records back and released them on my own label, RJ's *Electrical Connections*, in 2009."

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Steelworks Studios, Sheffield UK



ADDRESS

3 Brown Street
Sheffield
S1 2BS

WHO RUNS IT?

Eliot Kennedy, Dave Nesbitt, James Jayawardena

WEBSITE

steelworksstudios.com

TELEPHONE:

+44 (0)114 272 0300

Slap bang in the middle of Sheffield, the Steelworks facility is something of a Sheffield music institution.

Having previously housed FON Studios, the building is now home to the three-man writing and production team of Eliot Kennedy, James Jayawardena and Dave Nesbitt. Kennedy took over FON in the early nineties and rebranded it as the Steelworks, creating a highly successful setup based around the simple formula of talented staff working with top quality equipment.

On the day of our visit, Eliot is mid-way through a 1500-mile drive back to Sheffield after being left stranded in Southern Spain by the volcanic ash cloud floating over Europe but co-managers James and Dave welcome us in and give us the full guided tour.

Triple trouble

The unique Steelworks setup is based around three studios, with each of the team working in a room tailored to

match their specialist skills and their role in the creative process.

Studio One, the largest of the three, is primarily used by Nesbitt for tracking and mixing. Studio Two, which features a small vocal booth, is Kennedy's base. Studio Three is home to Jayawardena and his synth collection. Dave explains: "The place works as a three man team because of the three rooms.

"When there's been two of us here at any point you just don't get the same volume of work through. It doesn't work as a machine."

Studio One is based around a huge Neve Capricorn digital desk and Logic Pro 7 running on a G5 Mac. Dave tells us why they're sticking with the older version of the DAW: "Logic 7 must be five or six years old now but it's solid as a rock. We bought 8 but didn't like it much so we stayed on 7. We were planning to upgrade to Logic 9 on Intel Macs some time around Christmas but we've been too busy for a big upgrade. It's a good three weeks to a month of down time,



Logic 7

"We bought 8 but we didn't like it so we stayed on Logic 7."

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INTRODUCING...



Front L-R
James Jayawardena
Producer/Programmer
Dave Nesbitt
Producer/Mix Engineer
David 'Smasher' Watts
Studio Engineer

Yamaha TX81Z

"This is nice for the 'Lately Bass' preset. It's just used for that one sound."

Waldorf Q

"The Q is just fantastic. The arps and the articulation you get from them are just brilliant."

MOTU 24 I/O

"We all use MOTU hardware and that seems to make everything run more smoothly. All the synths come into here and I can monitor everything in real-time."

Novation Supernova

"I like the Supernova for pads. It's a really cool synth."

Jim's Synths

Keyboard virtuoso James Jayawardena showed us around his programming studio. Jim has tried just about every soft synth on the market and has a handful of firm favourites: "I love Spectrasonics Atmosphere

and I think FM8's great for arps and bell-y stuff. I also love the more quirky stuff like Absynth. As far as hardware goes, the most desirable piece of gear in the room must be the immaculate Roland Jupiter-8.

James tells us how it ended up in the studio: "Eliot and Gary [Barlow] bought it together when they were writing. Around the same time they also bought some really posh studio chairs. When they parted ways, they

had a little conversation about what to do with the gear. Eli said, 'I really want to take the Jupiter,' and Gaz went, 'I really want the chairs!'. As nice as the chairs might be, we're sure Eliot got the better deal."



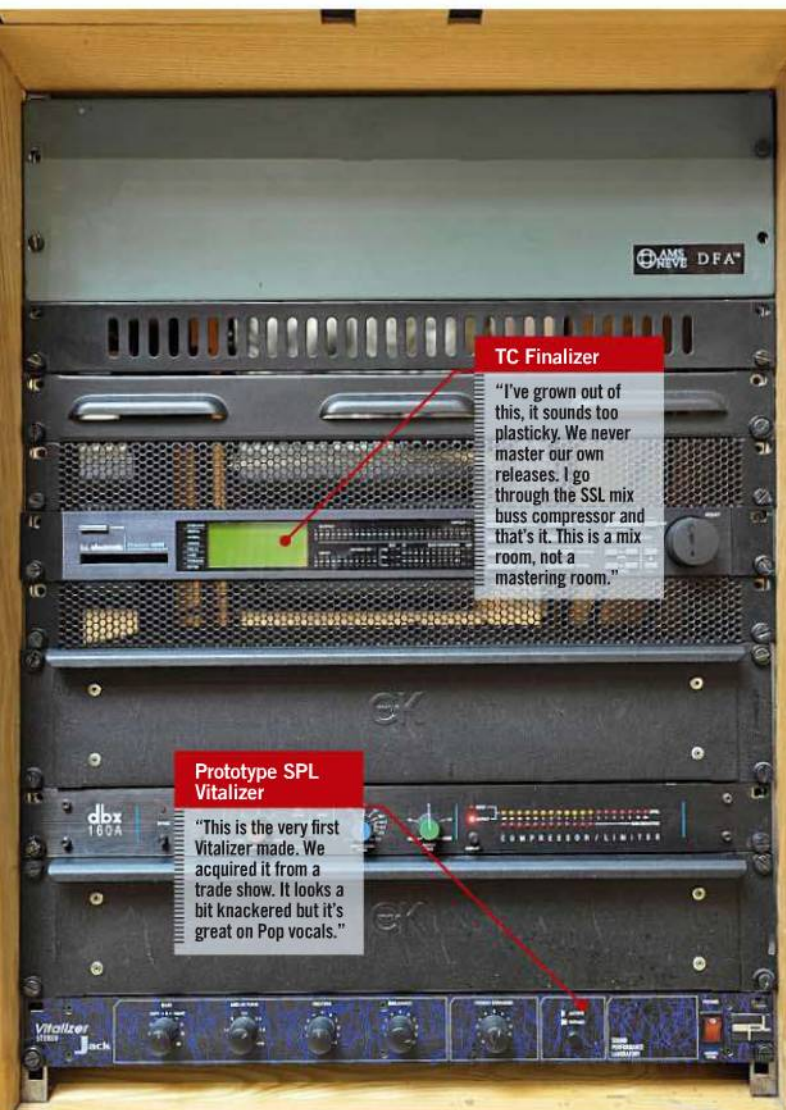
Genelec 1039Aa

"These are a bit ridiculous to be honest. I don't ever mix on them but they're great for the A&R men."

Genelec 1031s

"These are my favourite speakers. They shape the sound a bit but they do exactly what hi-fi speakers do so they translate better than any other monitors I've used."





which we just can't do. It's not easy for us just to do a bit at a time because every room needs to be in sync – we need to be able to move songs from one room to another so everything has to be a mirror or it creates problems."

The boys are united in their appreciation of Apple's DAW, with James telling us, "I love producing in Logic. The way it works is intuitive and it sounds great. The timing's so accurate and it's really vibey." Dave agrees: "Pro Tools has become a bit of a studio buzzword for people who don't even know what it means. It's just a soundcard and a DAW. There's so little difference between them all, it's all about finding what you work well with and sticking with it when it's

Massive Passive stereo EQ and Variable Mu stereo compressor. Dave can't praise the summing mixer highly enough. "For me, internal summing algorithms in the new DAWs still aren't up to it. Just sending a flat mix to the outputs and summing it through the Manley brings it to life. It becomes so much more stereo." The live spaces in the studio provide plenty of options for tracking, with the small vocal booth in Eliot's room favoured for artists who prefer a more intimate feel and the main live room offering a bigger option. "The vocal booth in the big live room's a Studiospares Esmono," Dave tells us. "We built it and it just looked like a gas chamber so we had it made into a little Caesar's Palace. It sounds so

tight. Even the glass is absorbent rather than reflective – it's a great design." If they ever need a bigger sound, the team have one last trick up their sleeve: "Eliot's really good friends with Bryan Adams

It's all about finding what you work well with and sticking to it when it's stable

stable. All our Macs here are on the internet, which is just something you can't do with a PC if you want to use it for audio. I'd hate to have to reduce functionality to increase stability." Wise words indeed.

Small is beautiful

Eliot's writing and production room is significantly smaller but no less impressive. Dave explains: "It's a fully functional mix room with a vocal booth. Eliot's got a Manley 16x2 valve mixer, preamps and outboard so it's almost like a scaled-down version of Studio One in terms of size but not in terms of quality. It's a small room but we can still mix commercially releasable tracks in here."

The studio is again based around Logic with carefully chosen outboard which creates a modular recording and mixing setup which Dave describes as "the perfect marriage of digital and analogue." Looking around the racks you'll find a wide selection of gear including a handful of Neve 1081 preamps, an Empirical Labs Distressor, a Summit Audio DCL-200 and a Neve 33609 compressor-limiter. The final steps in the mixing signal path usually consist of the Manley 16x2 valve summing mixer,

from working together so much. We sometimes fly out to his Warehouse Studio in Vancouver for a week to track drums. He's got an unbelievably huge drum room which is great for that big Rock sound."

Division of labour

The real versatility of the Steelworks setup is that all three members of the team are highly accomplished musicians, songwriters, producers and mix engineers, meaning they can all work simultaneously on a project to speed up the creative process. Jim plays keyboards, Dave's a guitarist and Eliot plays bass, so most live instrument parts can be recorded at a moment's notice.

It's an arrangement that suits the way the Steelworks team focus heavily on artist development and songwriting rather than trying to make a quick buck by rushing bands in and out. The highly efficient Steelworks production machine is a prime example of modern British industry at its best. **FM**

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ON
THE
RADAR

Sasha

He's one of the legends of Dance music and was one of the first DJs to embrace Ableton in the booth. We dropped in to see his brand new audio visual show at Avalon, Los Angeles

Still remixing everyone from Kasabian to Little Boots, Sasha has had a very distinguished career and continues to relentlessly tour, mix compilations and produce original tracks. It was over five years ago when Sasha was causing a stir with his custom-made Ableton controller, so we were keen to grab him backstage to find out if, with all the other options available for Ableton control, he's still using that one-of-a-kind controller.

FM: What is your DJ set up now?

Sasha: "I was using Ableton with my controller for a few years and then it actually broke in the middle of my US tour so I had to go back to CDs. During this time, Pioneer heard about it and sent me the new CDJ2000s which I fell in love with. I think

every time you change your way of playing it opens up new ideas and possibilities and gets you excited all over again. So after falling in love with playing CDs again, I've incorporated the whole thing together tonight, with two CDJ-2000s, Maven controller [Sasha's custom-built Ableton Live controller] and Ableton set up as a looping and effects machine."

So it's all MIDI sync'd?

"No, actually I just ride it by mapping the tempo to a fader on the Maven like you would on an old Technics deck. It's all pretty simple."

And are you using the new Pioneer mixer too?

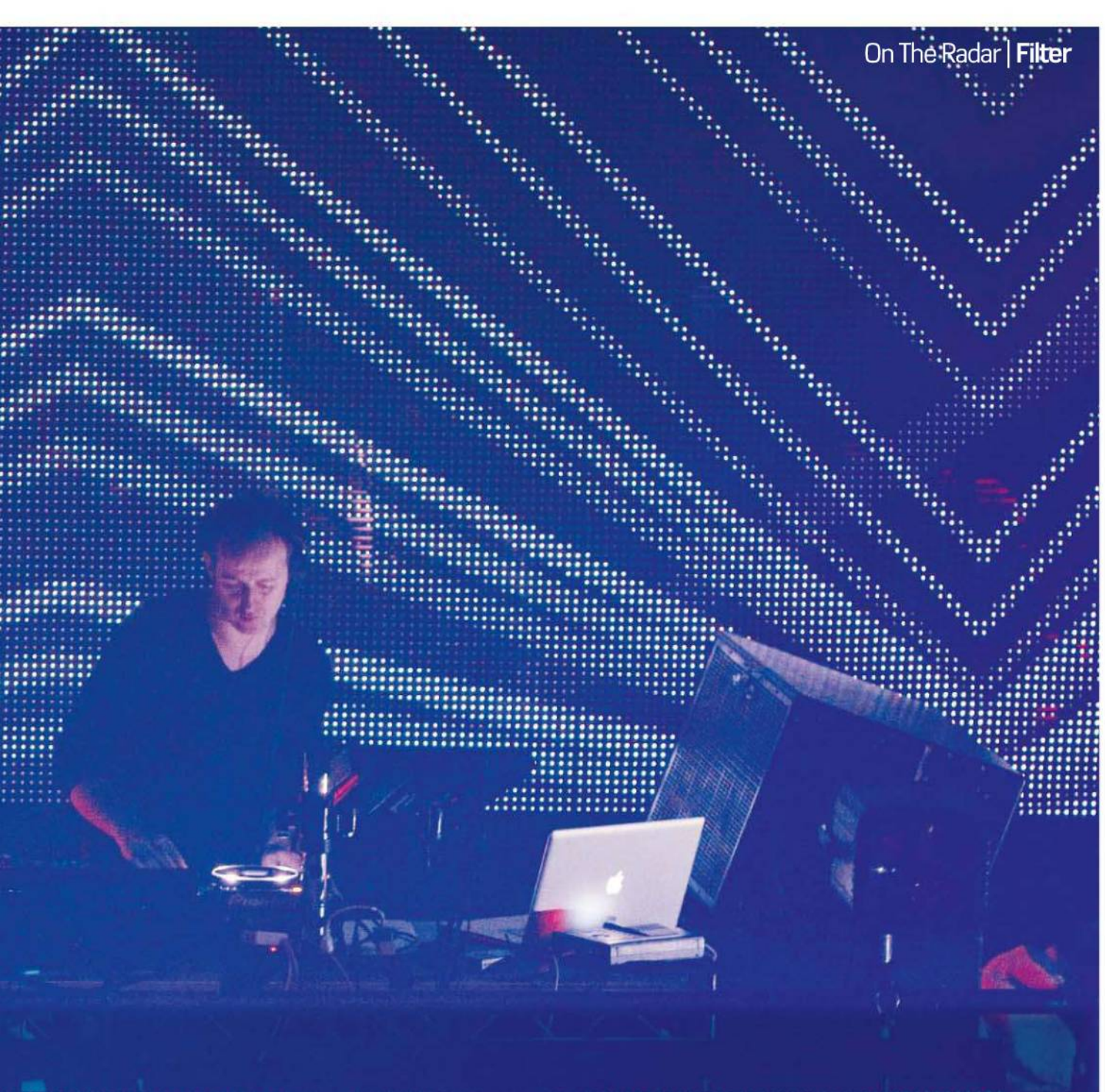
"No, sorry Pioneer, but I don't like it. I think they've really missed the boat with that one."

But you'd be able to trigger Ableton from it, right?

"I hate touch screens. I remember seeing somebody DJing on the Lemur and it just looked ridiculous. For me DJing and touch screens don't work. I always just imagine having a soggy finger from drinking and it not working on the touchscreen when you need it to. There is a mixer they need to build – a mixer that's halfway between the DJM-1000 and the DJM-800. The 1000 sounded so good, but it was too big, where as the 800 had so many superb features but was just that little bit too small. Especially, when you compare the 800 to the Allen & Heath mixers, which sound superb. Tonight I'm using the Pioneer DJM-800 though."

Wasn't the Maven controller going in to mass production at one point?

"We're actually, really close to finally making a production version of the Maven controller that we can sell. We're currently in talks with a few major manufacturers about building it. There have been so many stops and starts with it and the people that were originally going to build it just sat on it and it was really frustrating that nothing happened. I think at the NAMM show this year they finally saw



the sales figures for the Akai APC40 and realised what I'd been trying to tell them for years.

"At the moment there isn't the perfect Ableton controller and in my opinion, my Maven is the best possible controller you could have for DJing with Ableton. My version would probably cost £5,000 to build so it's not feasible as a mass market product."

What's going to be compromised in the manufactured version?

"When I sat down with the guy that designed my version originally, I told him the story of when I played a gig and my deck fell off the booth and hit the floor. We picked it back up and it worked. When you have a bit of kit that you do heavy, heavy touring with, it has to be built like a tank. So for my version it has to have all of the highest quality parts but the production version maybe doesn't need this, but will be just as tactile."

So is Ableton going to eventually lose the battle to the CDJ-2000s in your rig?

"No I think Ableton offers an amount of creativity that is unbelievable when you engage it properly. But, I'm really enjoying the features of the CDJ-2000. I'm searching for a nice middle-ground. I've been focusing a lot on doing custom edits for playing out because, when I used to play solely in Ableton, everything was an edit and sometimes you'd want to recall it and you'd never be able to do the same thing from gig to gig."

"So this mixture of pre-prepared edits and custom on-the-fly edits is perfect for me."

I suppose you're at the stage where you can do whatever you want now?

"No, I can never do that. You're only ever as good as your last track or your last gig. People have short memories in the clubbing scene and tracks that

were important to them at one point in their life disappear very quickly. Plus, it's very demoralising now, because you can spend ages and ages digging for the latest tracks and four hours after the gig you see a tracklist go up online."

"I spend a lot of time asking producers for the parts of their tracks so I can do my own VIP mixes and edits to retain a certain amount of exclusivity in my sets with bespoke versions. It's so much fun doing re-edits and I do mash ups on my laptop when on the road using the Mixed In Key software to find all the parts."

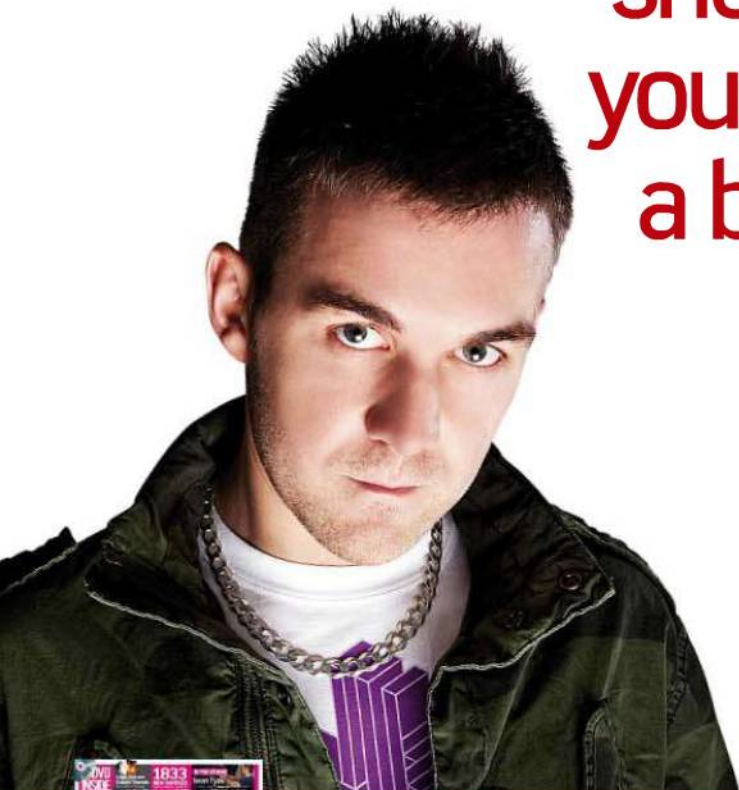
"One of the biggest challenges for the DJ now it to find that element of uniqueness and exclusivity in your set and how you play." **FM**

WANT TO KNOW MORE?

For more information on Sasha and here you can see him DJ check out djsasha.com

If you're serious about music production, *Future Music* should ALWAYS be in your kit list. It was like a bible to me when I was starting out!

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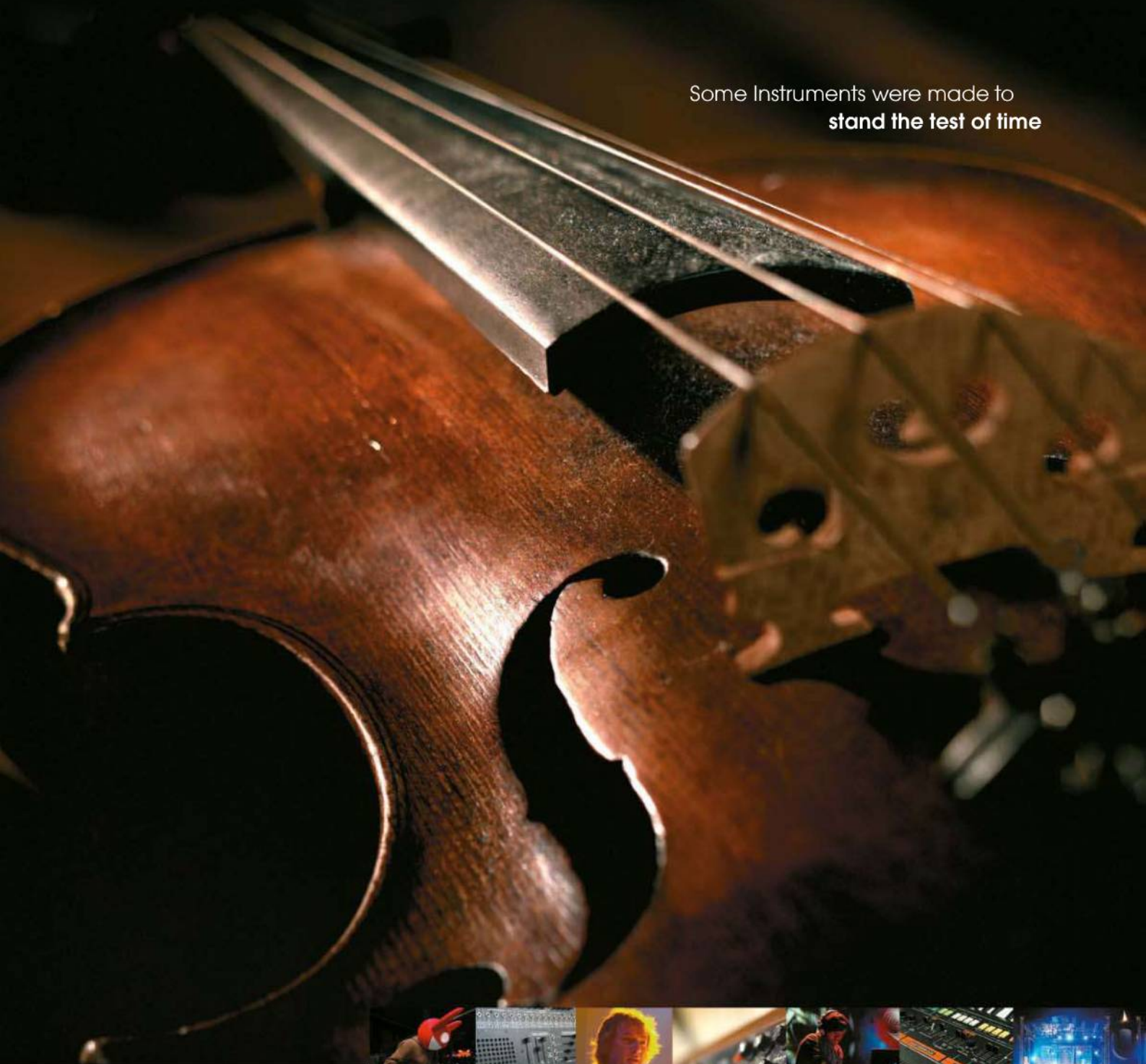
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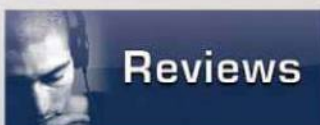
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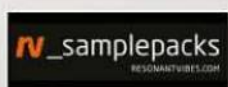
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Albums



If it's hot, it's here. Welcome to this month's new releases, all lovingly rated by the *FM* review crew

Album Of The Month



LCD Soundsystem **This Is Happening**

DFA Records



From the Lodge-esque cover to the *Boys Keep Swinging* referencing glam stomp of *Drunk Girls*, the spectre of Berlin-era Bowie looms large over *This Is Happening*. Having previously suggested that this is likely to be his last album as LCD Soundsystem, James Murphy wraps up the trilogy in crowd-pleasingly familiar style without ever giving the impression that he's going over old ground.

Opener *Dance Yrself Clean* teases with three minutes of stripped-down introduction before bursting into life as a filthy synth-led shuffle, perfectly setting the tone for what's to come.

Lyrically, the album ranges from the sardonic critic-bashing of *You Wanted A Hit* (with the joke of course being that LCD Soundsystem "don't do hits") to the desperately vulnerable *I Can Change*. All of this is framed in the characteristic production style of Murphy and co's cherished DFA Records. Although it was largely recorded in Los Angeles, the album's New York influence is easy to spot, from the Chic-style, Studio 54 Disco grooves, to the nervous energy reminiscent of early Talking Heads records.

Musically, LCD have never sounded tighter, whether effortlessly building and deconstructing grooves on *Pow Pow* and *One Touch* or rattling through the fuzz guitar riffs of *Drunk Girls*. Murphy

has been quoted as saying that the very concept of the album itself is outdated, but as a collection of songs *This Is Happening* perfectly encapsulates the group's appeal.

We can only hope that LCD continue to exist in some form, but if this really is to be the end then at least we can take comfort in the fact that *This Is Happening* is a fitting swansong for a project that has defined an entire genre, to the same extent that Bowie's Berlin output defined his own late-70s sound. **Greg Scarth**

ADD THESE TO YOUR PLAYLIST:

Dance Yrself Clean, One Touch, I Can Change

9/10

MGMT

Congratulations

Columbia



MGMT's psychedelic Electro-Pop debut *Oracular Spectacular* was one of the biggest surprise hits of 2008, spawning three huge singles and topping the critics' end of year lists. Despite the Poppy hooks and crossover success, the album struck a fine balance between the music's slightly twisted mainstream surface and filthy psychedelic undertones. For *Congratulations*, the core MGMT duo of Ben Goldwasser and Andrew VanWyngarden have enlisted the help of former Spacemen

3 member Pete Kember – better known as Sonic Boom – on production duties.

Anyone hoping for an album of radio-friendly Pop songs is likely to be disappointed. The sound has duly taken a significant shift towards the avant-garde, best exemplified by the epic *Siberian Breaks*, a 12-minute masterpiece about surfing in the Arctic Circle.

Willfully difficult at times, *Congratulations* sees MGMT take a very purposeful step away from their crossover sound to create something more complex but equally as appealing. **Greg Scarth**

ADD THESE TO YOUR PLAYLIST:
Flash Delirium, Siberian Breaks,
Brian Eno

8/10

Ellen Allien

Dust

BPitch Control



Following in the footsteps of *Sool* (2008), Berlin Rave queen Ellen Allien delivers a fifth album, wedged in-between her busy life as a record label owner, fashion designer, producer and DJ.

Dust is an album that perhaps re-enacts Allien's entire career in music to-date, flitting between Kraftwerk-infected Techno, Indie-Electonica and weird, glockenspiel-based Disco.

It would be fair to say that Allien can withdraw into a pretentious universe of bleeping abstractions. As you might expect from someone

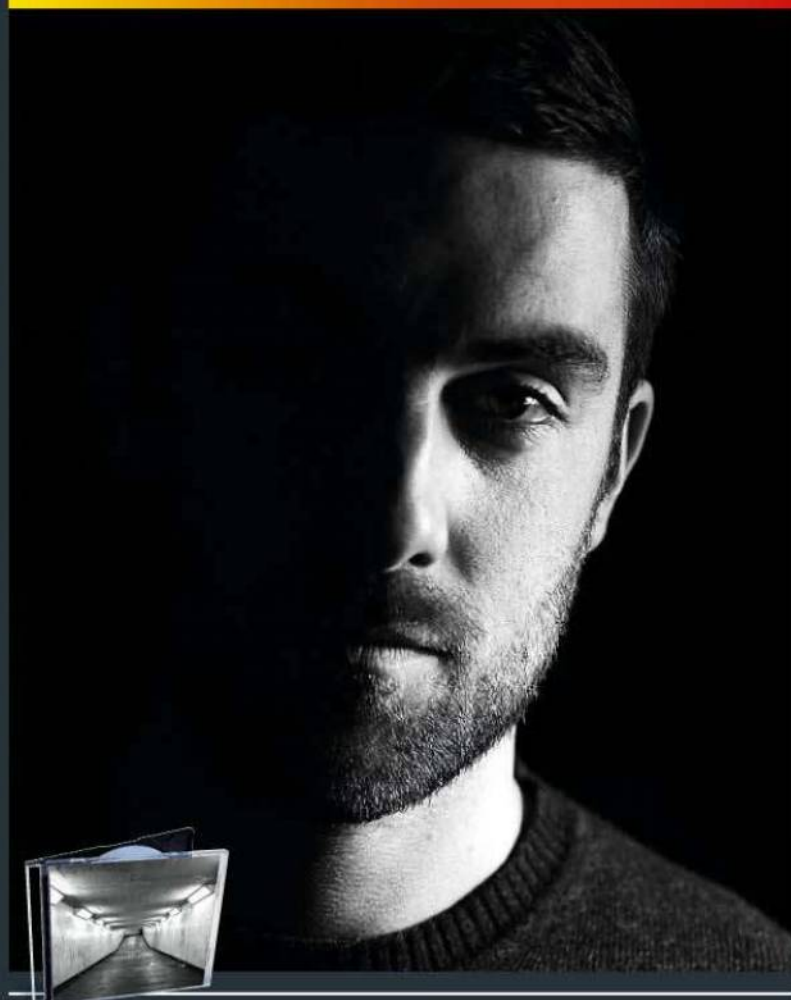
who wears the fashion designer hat, ideas often revolve between inspiring, ostentatious and preposterous.

Perhaps that's why I prefer the more straightforward *Sun the Rain*, a mesmeric Indie-Pop track, featuring sumptuous angled guitar riffs, stylish breathy vocals and melancholy synth lines. The similarly-styled *You* is almost as inviting, but even rockier, while even those conceited abstract moments mentioned earlier more than often shine through. Hats off to Allien – few women in music have this much confidence, swagger and style. **Danny Turner**

ADD THESE TO YOUR PLAYLIST:
Ever, Sun the Rain, You

8/10

It's On Our iPods



Scuba

Triangulation

Hotflush

The second LP from Hotflush Head Honcho Scuba see's him building on the success of the first album *A Mutual Antipathy* and

concreting his sonic position in the wide myriad of the Dubstep genre.

While the hype around the scene seems to focus on the NI Massive preset-driven wobbler bassline, Paul Rose is taking things in a much deeper direction. As with some other key artists of the genre, he's enjoying the freedom that Dubstep is meant to offer with excursions into Techno, '90s Jungle, Aphex Ambience along side the deep bass pressure.

The heavy sub and driving metallic rhythms of *Three Sided Shape* are guaranteed to pound the dancefloor while,

in contrast, *On The Deck* has a four-four rhythm, with an almost horn-like lead line phasing across the track.

This album has a feel of the mid-90s Intelligent Drum 'n' Bass. Each track has enough sonic texture to make it a pleasant listening experience as well as enough punch and drive to make them work really well on the dancefloor. This is certainly no easy task, and the result is a sophisticated album rather than a collection of singles. This record deserves praise and will retrospectively grow in value. **Will Seelig**

ADD THESE TO YOUR PLAYLIST:
Three Sided Shape, You Got Me, Before

9/10

UNKLE Where Did The Night Fall?

Surrender All



UNKLE's fifth album sees the group take a giant leap towards a more Psychedelic

sound, a significant move for original members of the Trip-Hop scene and leading lights of British downtempo music. Having previously collaborated with Indie Rock's A-list, UNKLE's James Lavelle and Pablo Clements have assembled a roster of more leftfield artists to contribute to *Where Did The Night Fall?*, notable highlights including Mark Lanegan's gravelly guest vocal on *Another Night Out* and The Black Angels' swampy Southern Rock performance on *Natural Selection*.

UNKLE's profile has gradually declined since 1998's seminal *Psycence Fiction* but the group's music continues to develop and evolve and the revolving door policy with collaborators ensures that the sound stays fresh throughout the album's 14 tracks. While never quite as vibrant and essential as their early work, *Where Did The Night Fall?* is a solid collection of downtempo Psych-Rock tied together nicely by Lavelle's classic Hip Hop production sensibilities. **Greg Scarth**

ADD THESE TO YOUR PLAYLIST:

Follow Me Down, Natural Selection

Another Night Out

7/10

David Byrne & Fatboy Slim Here Lies Love

Nonesuch



As a concept album, it seems fairly unlikely. The transatlantic duo of Norman Cook and

Talking Heads frontman Byrne offer a 22-track song cycle devoted to former Philippine First Lady Imelda Marcos. On singing duties, the pair have enlisted the help of a staggering twenty-two vocalists, the vast majority of them female. Many of the high points of the album revolve around these guest appearances, with standout contributions from Róisín Murphy, Santigold, Cyndi Lauper and Sharon Jones.

At times the safe Disco-Soul production style gives the sense that Cook has been taking cues Mark Ronson, the kind of pseudo-funk inbreeding which can only end in clichés and derivative pastiches of classic songs. With such an impressive roll call of contributors, *Here Lies Love* begs for more risks to have been taken with songwriting and production, but its biggest weakness is its length. Clocking in at a bloated

90 minutes, the album outstays its welcome by at least an hour and the few highlights are swamped by filler.

Greg Scarth

ADD THESE TO YOUR PLAYLIST:

Don't You Agree, Dancing Together

Please Don't

5/10

Tiefschwarz Chocolate

Souvenir



These Deep House maestros have been a mainstay on the European club scene

for a while now, and not simply due to their own rhythmic laid-back style. Tiefschwarz has remixed for Madonna, Missy Elliott, Depeche Mode, and Spektrum to name a few.

With *Chocolate*, German brothers Ali and Basti Schwarz divulge into edgy Electro-House, yet refrain from totally dispensing with the lo-fi basslines and ticking Techno hi-hats they're renowned for.

While Tiefschwarz's music remains entwined in the vice-like grip of the dancefloor, there's little doubt that the majority of tracks on *Chocolate* carry a surprisingly intricate architecture. Between the insistent, yet placid, beats and shuffling, evolving percussion, lays lovingly placed shimmering synth motions, clanking particles and phased-in keys, all designed to strike the right balance between listening music and Dance music. On top of that, a variety of vocalists are drafted in to add further scope. There's even the odd departure, such as the ambient piano

track *Bon Voyage*, and Techno-Funk of *Find Me* feat. *Cassy*. However, with 16 tracks in total, *Chocolate* is rather a long journey, which could derail the duo's attempts to resist repetitive audio syndrome, although by cleverly dangling one leg in, *Chocolate* can still be considered a clubbers' delight.

Danny Turner

ADD THESE TO YOUR PLAYLIST:

Accordage, Find Me, Home

7/10

Funki Porcini On

Ninja Tune



Few of Ninja Tune's long-term artists have flown under the radar, although it's perhaps

not so surprising in the case of Funki Porcini (James Braddell) having taken eight years to follow up his previous album, *Fast Asleep*.

The musician spent a decade in Italy making music for TV, and has releases filed for a record label called *Crippled Dick Hot Wax!* But Braddell is not a DJ, and hasn't done a remix for 10 years, so you might imagine he'd be more than a little rusty.

Instead, *On* features what can only be described as a charming, vibrant collection of tunes, opening with Braddell's tribute to Bob Moog, *Moog River* – a cover version of Andy William's *Moon River*.

The remaining nine tracks tread safer territories, fusing elements of Downtempo and Jazz from a platform of sturdy breaks and/or live instrumentation. The results are mixed – numerous low-key efforts fail

to evolve sufficiently and lack dynamism, yet curiously act as a springboard for sparklers such as *Belisha Beacon*, glistening with Jazzy, melodic piano spills, strings and dryly reversed beats.

All-in-all a decent yet rigid album, heightened by Braddell's occasional interloping Future Jazz experiments.

Danny Turner

ADD THESE TO YOUR PLAYLIST:

Belisha Beacon, Moog River

The 3rd Man

6/10

James Teej Evening Harvest

Rekids



Released on Radio Slave's Rekids imprint, Canadian Teej, serves up some ultra Deep

Techno and House. Loaded with soft squelchy arpeggios and percussive 16C swings, the album bubbles with classic 909-style hats and claps. There are touches of vocal throughout but the main backbone of the album is built on Teej's detail to space in the production. At points there are tracks so sparsely instrumented, it's quite incredible how Teej retains to the interest of your ear.

It's the attention to detail and subtle automations that makes tracks build almost invisibly. But, crank this album up and you'll be grooving to some very luscious, danceable music.

Chris Barker

ADD THESE TO YOUR PLAYLIST:

Monaco Villa, Greenback ft. dOP, Sicken

8/10

Compilations

PICK OF THE MONTH

Cosmo & Ashley Beedle Darkstarr

Music Response Records



Cosmo in the mix on the first disc, while Ashley Beedle steps up to mix the

second disc of this cosmic, Disco-infused compilation. With big Balearic and Psychedelic influence, there's also tons of fresh Nu-Disco, bendy bassline action to keep you interested. Brilliant!

Chris Barker

Sean Brosnan Future Disco vol 3

Needwant



The third episode of this compilation series continues to deliver the finest

Nu Disco and synth-laden funky grooves around.

With Disco-edit maestro The Revenge on board and Crazy P and Todd Terje all taking part with their remixes and originals, it's another beacon of Disco light. A cracking compilation not to be missed.

Chris Barker

Renaissance The Masters Series James Zabiela – Life

Renaissance



The Renaissance series continues to deliver some of the best-looking

compilation packages we've seen.

This double-disc delight is another conceptual moment from Zabiela, taking listeners on a musical and soundscape led journey over both discs. It's a superb, mature and exciting compilation and will certainly stand the test of time, where other compilations come and go.

Chris Barker

Moby Wait For Me Remixes

Little Idiot



Split into two CDs, CD one serves up twelve of the best remixes from

Moby's latest album in full unmixed format.

While CD two is a mix of these tracks cut up by Moby himself. There's beautiful mixes from Gui Boratto, Popof, Chuckie, Mixhell and more. It's a great listen and a great DJ tool. Check it out.

Chris Barker

Retro Respect



Sounds From The Ground Kin

Upstream Records

Originally released in the 1996 to huge critical acclaim, this

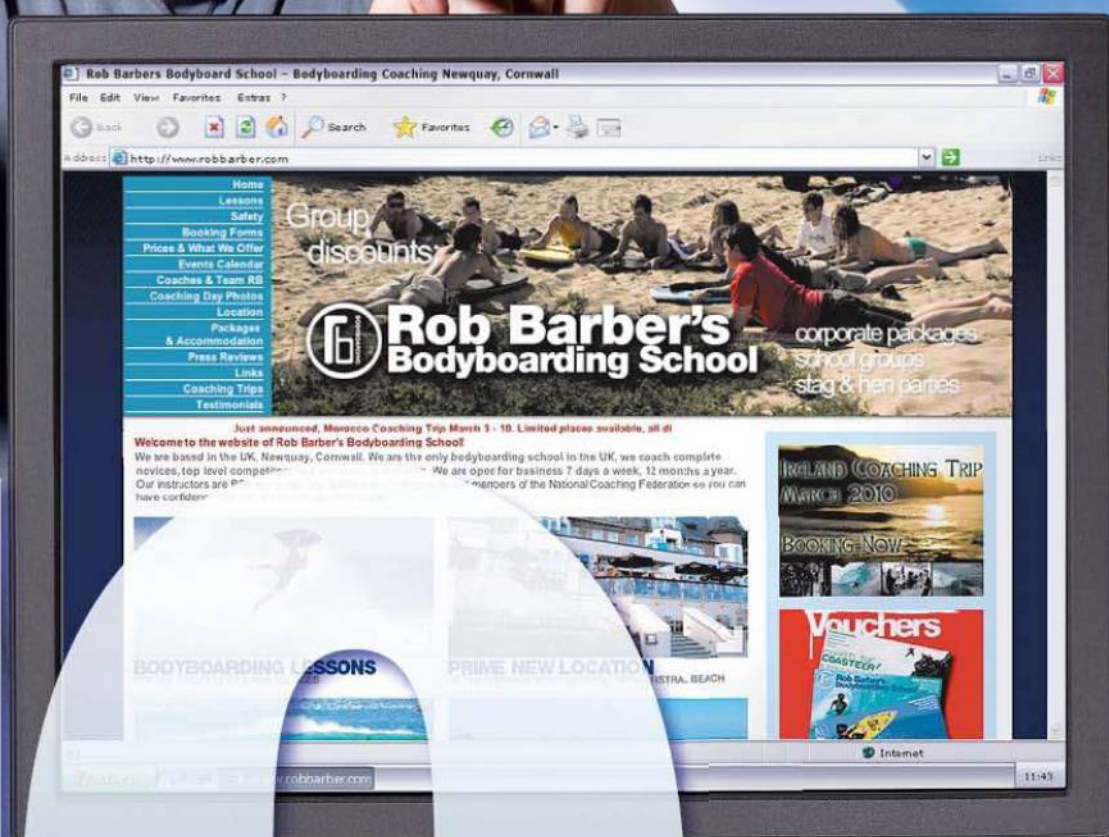
Dub-influenced downtempo album still sounds fresh among the burgeoning Dubstep scene.

Merging the acoustic and ambient organic sound palette with drum machines and synthesizers, *Kin* is a hidden gem. If you're unaware of this groundbreaking genre-mashing album, re-discover it now as it's just been re-mastered and re-released. Hurrah! **Chris Barker**



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PRODUCTION ESSENTIALS

Parallel Processing

Blending processed and unprocessed sound is a classic and effective technique that can provide drastic improvements. And the good news is that you can do it with tools at every DAWs disposal.

Marco Migliari explores the parallel universe...

The history of sound engineering is punctuated by a cluster of 'what if' moments. Early audio pioneers wearing lab coats and turning knobs the size of an orange were breaking new ground experimenting with unconventional processing techniques. It's fair to say that the history of parallel processing, aka the art of blending processed and unprocessed sound, is at least as old as the audio mixing console itself. Even the oldest mixer makes it easy to feed an adjustable amount of the original signal into an external sound processor (compressor, EQ, filter, etc) and add the return of this additional signal path to the unprocessed signal.

It is also a known fact that the Beatles (who were initially recording on a four-track machine) were keen users of parallel processing techniques and, despite the limitations of their setup, some of their more experimental and wayward techniques became so widely accepted that they effectively moulded the sound of records and studio practice for decades to come.

What is it?

The difference between processing a sound and parallel processing is simple. Both start out with an original, unaltered sound and signal path. In a processed sound, there is no amount of the original signal left. The sound passes through the process and is altered before continuing to the output. All you hear is the processed sound. Parallel processing, instead, leaves the original sound unaltered, but adds an amount of processed sound alongside it. It's the blend of these two elements that constitutes the end result and often, different proportions will sound up strikingly different.

Interestingly, one of the most common situations of the above scenario, adding a reverb or a delay effect, should not be regarded as parallel processing. Parallel processing relates more to generating a whole new sound by means of compressing, equalising, filtering, distorting, reamping and generally using and abusing non-time-based audio processors.

Parallel processing is non-destructive and brings modularity into sound-sculpting,

THE EXPERT

Marco Migliari
producer,
engineer



Marco has recorded countless bands in some of the world's most famous studios. As an engineering gun for hire he continues to innovate and excite in every new project.

as several processes can be combined simultaneously. Perhaps the most significant example is parallel compression.

Parallel lines

The creative use of compression was partly inspired by the sound of '60s Rock radio stations, when the use of a brickwall limiter to keep the loudness fairly constant and engaging and to prevent it from clipping the transmitter. It wasn't much later that on-board audio compression on the mixing console rapidly became a must-have for every professional recording studio. It was a natural evolution spawned by overpopulated outboard racks and the growing desire to work hard at mixes in order to achieve an edgier sound. The goal was to produce something that would cut through on radio.

But it was only in the '80s that things really started to move. Automated consoles fitted with total recall and a fully comprehensive set of analogue processing meant that not a single patchcord was needed to achieve even the most complex audio routing. Now the mixing console

Parallel Processing in the Studio

How it works and why it works can get complex but it's principles are as old as studios themselves

You may be working entirely 'in the box' and a master of studio software but the concept of parallel processing really comes alive by recalling the humble, classic studio system of a mixing desk (or board) with its forest of knobs and sliders.

At it's most basic level each channel carries the sound of one instrument, each given a gain slider

and each being directly controllable. On from this it's not unusual now for a finished 'bass sound' to be comprised of two or three (or more) separate elements being combined. The 'thump' of the pluck may come from one sound while the high-end 'fizz' comes from another. At this level the chances are you're 'parallel processing' in your projects already.

Things get much more interesting however when you make the discovery that sounds themselves can be split into component elements and tweaked in a channel to make a better whole. So forget hour-long sessions at the EQ, or flicking through compressor settings in vain. Laying elements bare means more control of the sound.



Parallel Filtering

Filters are a very efficient way to vary the position of a sound in the mix. Our ears are particularly sensitive to any changes in the midrange, so sweeping an EQ or a filter in or out of that zone can

bring an element to the front or push it back with great effect. They also work great combined with panning. When using filters for parallel processing, it's important to look at the

frequency range of the sound that we're going to interfere with. Material rich in low frequencies might need to be pushed an octave up before being filtered, otherwise the

filtering effect won't be audible and will likely destroy lows.

blend of the three cello tracks, with reverb

> Cello processed sound: A blend of the original cello recording and the parallel processing sound



> Cello original sound: Plain

Step 1

A cello balance is set on a Pro Tools mixer — three tracks of cello, each compressed slightly with the Oxford Dynamics plug-in (the one displayed is on Cello 1) are then submixed into an aux channel which is processed again with the URS plug-in. A pre-fader balance is taken from the CELLO MIX Aux and fed to buss 39-40, hence using all the processing done by the URS plug-in. Another aux is picking up buss 39-40 for some parallel processing.

Step 2

FilterFreak is an automated filter which is currently set to modulate nearly 90% around the centre frequencies of the two sweeping filters, a high-pass set at 191Hz and a low-pass set at 519Hz. The modulation makes them swing around the centre frequency. Note also the stereo delay that follows the filter — this is a fixed delay of 9ms on the left channel and 11ms on the right channel, both with a 72% blend of processed sound.

would take care of the whole session and would also remember the settings for further tweaks! From that moment producers and engineers started filling every channel of the console, safe in the knowledge that the

sound around 80Hz, a clicking sound around 2kHz and a sub-bass sound somewhere below 50Hz. If simply treated with EQ and compression, it would be difficult to achieve the perfect balance

because either the compressor would be triggered by the EQ or the EQ would fight the compressor. Fortunately, via parallel processing there's a simple workaround.

Perfect kick drums

Here's the recipe for a

powerful, loud bass drum sound:

First duplicate the same bass drum onto two channels of the mixer, one of which is dedicated to boosting both the clicking sound and the fundamental note with the addition of some gentle, fast release

compression. The other channel is set to push the sub sound, with a filter to eliminate all the high frequency content. Also include a gate (triggered by the other bass drum channel) to tail off any unwanted rumbling. Finally, cap this with a limiting compressor barely shaving the tips of any peaks and maybe add some tube warmth for good measure. Now blend the two channels together until the sub feels just right.

Now things get a bit more complicated. Send some signal pre-fader from both of them into a third channel where there's a very fast compressor with fast release and high ratio. Keep increasing until there's a lot of compression going on. You're now fully armed with all the ingredients you need each on a simple fader. Blend a little of this heavily compressed sound (with a little sidechain EQ on the compressor if necessary to get the right amount of compression without excessive triggering from low frequencies) into the other two.

It's much easier to shape the right sound out of three faders rather than an EQ

technology would keep up with any extremes they could think of.

What they were looking for were ways to enhance a sound by addressing each issue separately. A Rock bass drum, for example, has three main components — a fundamental

Parallel Compression: Harder Drums

Fast compression pushes low-level details into the limelight while the transients are squashed out, effectively reversing the more familiar dynamics of the sound

> If you blend the compressed sound with the original sound you'll notice that the perceived dynamic range hasn't changed that much because the existing transients are still there. However, there is increased detail (typically more mid to HF information, depending on the compressor's characteristics) and loudness.

This type of parallel compression works wonders with any transient-based material – drums and piano for example – instantly adding thickness and presence, as well as a more defined tail.

In these two examples, we're going to talk about specific plugs for screenshot purposes, but you can always substitute in your own EQs, compressors and alternatives either those built-in to your DAW or from a third-party.



ON THE DVD

> **Regular drums:**
The drums before treatment

> **Side compression drums:** The drums after treatment



1 Here we've got a URS EQ followed by an Impact compressor on the Master Insert. All channels are extensively labelled, to facilitate mixing. A dbx 120 subharmonic synthesizer is also set as a hardware insert, fed by buss 11. Automation is currently off to allow for rough level adjustment.



3 Some sub bass is added to the bass drum and the floor tom. A compression channel, fed to busses 7-8, is added to the mixer. A three-band fixed EQ is also set before the compressor, in case some basic equalisation is needed to make the compressor work more evenly.



5 A new drums balance is created on the auxiliary sends to feed the parallel compression channel. Some of the panpots are purposely different – this is to try and achieve a more dramatic effect once the compression gets going.



2 EQ and compression plug-ins are added to the mixer. A starting point mix is all that is needed at this stage. Balance is very important, as it will determine how much parallel compression will be required in the end.



4 Pre-fader sends to busses 7-8 are added to all the drum channels. This makes it more versatile to create a separate feed (effectively a different drums mix) to suit parallel compression rather than just take the main drums balance.



6 This is a close up of the parallel drums compressor. In this instance, a very fast attack and super quick release in combination with a limiting compression ratio of 20:1 are chosen to mangle the drums sound to the point of adding some edgy distortion due to the extreme settings.

Parallel Compression: Punchier Bass

Using similar techniques to our *Harder Drum Sounds* box previously we can make any bass bigger, brighter and better with a little compression and subharmonics

> Softer instruments, like bass, pads and even vocals can also benefit from parallel compression, but usually with different compression settings, like a slower attack and less aggressive ratios (4:1 is typically best for vocals and pads, 6-8:1 works for bass). An EQ boost before the compressor can also help to trigger it more effectively in the range where the sound must leave its mark.



> **Original bass sound:** Before any processing
 > **Original bass treated:** With channel plug-ins
 > **Paralleled bass sound:** The second bass track, by itself
 > **Final bass sound:** The completed blend of the two bass channels



1 Start with a simple mixer, with EQ and compression over the master output. If you need to sit the bass sound in an existing mix (hidden in this picture) it's important to run it through the same chain before making any tweaks.



2 A hardware insert is added, feeding a dbx 120XP Subharmonic Synthesizer. In small doses adding some lower harmonics can help sculpt a better slot for a wimpy bass sound. It tracks the musical material and boosts the lower harmonics as played and not just by frequency.



3 The main bass sound is processed, a tape simulator is added as a front end followed by a channel strip (set to Tube emulation on the input, to give it a rounder feel). A small amount of signal is also fed to the DBX120. A new bass parallel channel is set ready for the parallel processing chain.



4 Here's the full-blown parallel processing audio chain. To begin with, a guitar amp simulation plug-in adds a little grit. A colouring three-band EQ dips some unwanted mids and a Fairchild 660 compressor packs some compression and adds some unmistakable tube colour.

By now you should be reaping the benefit. It should be easy to see how much easier it is to shape the right sound out of these three faders instead of trying to find the right combination of EQ and compression all on the same channel.

This is parallel processing in one of its most basic and best loved forms.

Go multi-band

Splitting a sound into its components can be done additively or subtractively. The example with the bass drum earlier isolated the troublesome lower frequencies to shape them separately and add them back into the mix. A more radical approach is that of multi-band compression, sometimes required by complex sources like vocals,

piano, strings and synths. By effectively dividing the source material into two, three or more frequency ranges (highs, mids and lows, for example) you can compress each band separately from the others.

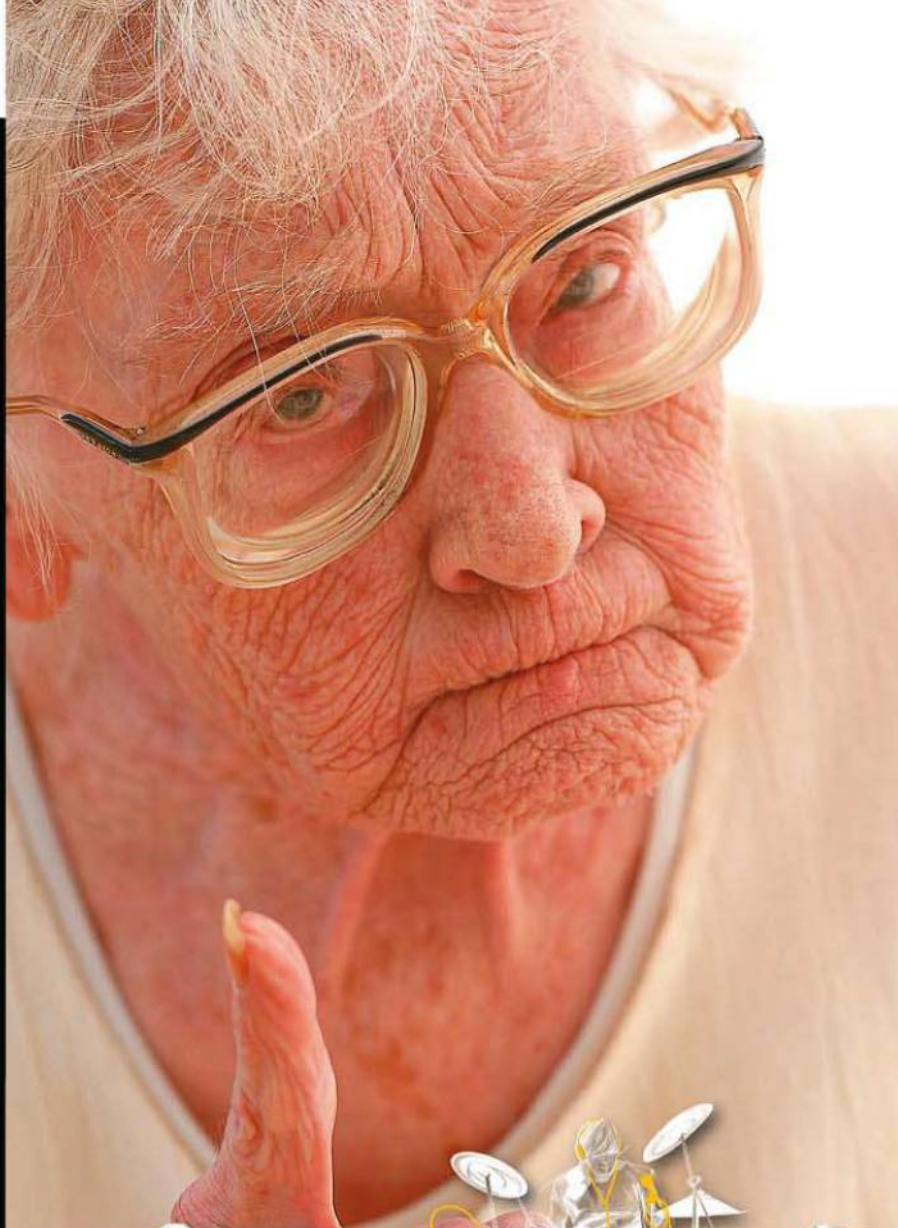
It sounds complex and rather heavy-handed but taking the time to set aside a few of your mix channels (be they real or virtual) not only increases the compression's effectiveness, but also avoids the annoying ducking effect triggered by sudden louder sections, with a perceived more stable level and increased clarity. Believe us, a quick quarter of an hour making the required channels on your desk and routing your sounds around will reap rewards.

Just a quick note: As with all things multi-band, the overlap between bands

should be as even as possible, to avoid any unwanted boost or notch due to discrepancies in the curve and response of the filters.

The perfect guitar tone

A good example to try this one would be the treatment of an acoustic guitar. It works like this: two channels are fed from the same mono recording, one runs through a low-pass filter and the other through a hi-pass filter, both set at 400Hz and with the same slope. Let's label them LF and HF. The LF channel can be treated with a gentle compressor to reduce boominess maybe preceded by a tube EQ around 200Hz to warm things up. Meanwhile the HF channel has a fast compressor to catch any finger



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Parallel Re-amping

Sometimes moving some air is the best way to give a sense of realism to an otherwise unconvincing sound

This is a slightly more complex setup, as it involves feeding the original sound into a loudspeaker (or guitar / bass rig) and recording the output with a microphone, or even let it run live along the mix. Re-amping has a more organic feel than simple emulation – adjusting the drive of the loudspeaker, the position of the microphone in the room, even the acoustics of the room all become

tangible parameters that can be changed on the spot and tailored to the specific purpose. Parallel re-amping is about supplying the missing details – otherwise there wouldn't be any point in keeping any amount of the original sound. Contrary to parallel distortion, this setup is aimed at creating realism and not texture. This could mean generating a bass cab sound when there's only a DI,

but could also mean placing a small, bare 5" LF driver on the top skin of a snare drum and feeding a snare sound into a power amp to drive it – the resulting bottom snare drum will sound very convincing indeed.

A small powered PA speaker is set for re-amping a synth bass part. A Shure SM57 and a Yamaha NS10 LF driver are both used to mic-up the sound. The NS10

driver is particularly good as a sub-bass microphone since it mechanically filters out anything above 200Hz, and it delivers a nice, tight bottom

end. Two of these setups where used simultaneously in the same room to retain the original stereo sound.



- > **Synth bass original:** Synth bass before re-amping
- > **Synth bass re-amped:** After running through a stereo PA
- > **Synth bass parallel re-amping:** The correct blend of both paralleled sounds



Get Physical

A lifeless 'in box' sound instantly sounds better if you set it free!

noise that sticks out. It's also worth feeding this through an exciter or into a short stereo delay to give the guitar some width without losing its body.

In phase

Parallel processing works with EQ and filters too and some wacky effects can be obtained by reversing the phase on the paralleled channel and EQing it heavily to introduce phase rotation. This is one of the by-products of most EQ designs, including a number of plug-ins. Some more common and controllable effects include swept filters, resonant filters and of course the classic 'telephone line' EQ where there's (literally)

nothing below 500Hz and above 3kHz. These effects usually poke out in a mix and are typically used to trigger time-based effects (delay, chorus, flanger) to create a thickening layer or to add a subtle 'ghost' spread without the need for reverb.

In the box

These days most studio setups don't really feature an analogue mixer and work 'in the box'. Unfortunately this doesn't make live parallel processing very easy. In fact, it's probably not a good idea to ever do any tracking through plug-ins. However, the real strength of digital becomes evident when mixing in combination with some analogue

equipment. In this case the whole mixer can be delayed to compensate for throughput latencies which is something that no analogue mixer can do.

While this was originally the exclusive territory of expensive digital mixers and hardware-based professional DAWs, most commonly used music software (Logic Pro, Cubase, Ableton Live, etc) can now efficiently deal with delay compensation when audio is looped through a physical I/O to allow the insertion of external gear. This truly opens up endless possibilities for those who can't afford a fully-fledged analogue studio but still wish to work with at least some analogue processing. Thanks to

Parallel Distortion

> Distortion is probably one of the most abused sound effects in recent times. Here's how to do it properly.

Thanks to distortion already creeping into our playback systems thanks to the poor quality of MP3 players, making true, 'tasteful' distortion stand out requires increasingly extreme settings to achieve the required effect!

Heavy distortion is a natural thickener – the sound is gained

and clipped and harmonically multiplied to span a wider range of the spectrum. But distortion can also be subtle – a typical example is the almost intangible colouration of tape, known to generate a very mild type of harmonic distortion when it isn't pushed too hard.

Most distortion devices, both in real life and in the virtual plug-in world, generally have a somewhat progressive behaviour, where a gain increase racks up a

proportional shift in sound mangling. Interestingly, it is usually the gain element that generates the distortion and not the level of incoming signal. This means that a conveniently fixed amount of distortion tracks the level of the incoming sound, perfectly levelled to slip at a set proportion under the shadow of the other paralleled channel.

This type of parallel distortion can be used to ghost a performance, be that of vocals,

bass, drums or piano, and provide an alter-ego that can be widened, effected, delayed to be a stereo pad over which the main unprocessed element can sit. Or it can be blended to add grit and texture to a sound that is too clean and stark.

Another classic example of effective parallel distortion is when an electric guitar is too weak in the mix and needs some help – running a second channel into another, different amp (be

that real or a plug-in) achieves a fuller, broader sound, which can be stereo-spread to better sit.



> Drums, no distortion: Drums

balance with effects and compression but no distortion

> Drums, distortion only: The blend of both SansAmp and Trash distortion

> Drums, parallel distortion: The completed drums sound

Step 1

This is the mixer for the complex distorted drums sound on the DVD. An Impact compressor is receiving the pre-fader feeds from all the drums channels into the 'Drums Compression' Aux channel – although this channel is currently muted (it is automated and will open in another section of the song), the parallel compression is still active within the Aux strip and is sent out pre-fader to bus 61-62. 'Drums FM Mix' Aux channel picks up bus 61-62 and runs it through a SansAmp plug-in – this is the first part of the distortion. The other half comes through the DIST DRUMS channel, which receives the same drums balance as DRUMS MIX (both Auxes share bus 39-40 as inputs) but runs it through iZotope Trash (see Step 2).

Step 2

iZotope Trash (this is the free Lite version originally bundled with Pro Tools) is a magnificent distortion factory, with some fine tweaking capabilities that go beyond the simple amp emulation. Even the Lite version is delivering a rather impressive sound – in the previous screenshot this is blended with the drums' SansAmp distortion to achieve the ultimate drums distortion sound.





SE USERS
INCLUDE;

Parallel Sound Replacing and Triggering

> There are times when a drum sound doesn't work in the mix and no EQ, compression, distortion or other trickery can fix it. Here's how you can:

We've all been there: a terrible sounding take that you just can't let go because somehow it's got that magic.

Triggering drum samples is nothing new. Even when

analogue tape was the multi-track standard, engineers used to spin samples all the time. Of course the accuracy of the trigger was somewhat let down by the insufficient speed of electronics, and intensive editing usually followed to manually line-up the samples to the original. It is a relatively recent thing that technology

finally caught up and brought us sample accurate live audio triggering. This is the ultimate parallel processing: as your DAW multi-track scrolls before your eyes, you can hear and choose in perfect timing new samples to go with the recorded audio, and equalise and compress until you have the perfect match to complement the

original sound without losing the performance.



> **Original kick:** Just EQ and compression here
> **GOG Kick:** The sample generated live by Drumagog
> **Paralleled Kick:** A blend of the two sounds. Note that the timing here is extremely good

Step 1

A simple mixer with just a bass drum (with a fair amount of sub bass courtesy of the dbx 120 insert) and a little reverb. There's some mild EQ boost around 2.7kHz and some compression on the original sound, but little else other than the mandatory EQ and compression on the master output.

Step 2

Drumagog has the skills to process the audio files before they play, find the exact location of all the peaks and their relative loudness, process the selected sample library to match the user settings for pitch, blend etc and finally play the samples with perfect timing. Multi-samples can also be used for dynamic expression, and the loudness of the sample tracks that of the original audio file.

increasingly flexible (and cost effective) audio interfaces it's never been easier to dig out that box of guitar pedals and simply hook them up and use them like normal plug-ins in your DAW mixer. There's

gives you true attention to detail and focus on the bigger picture.

Check out the *Parallel Re-amping* section of this feature on page 40 for a bit of rough and ready inspiration.

Go configure

Whether analogue, digital or somewhere in between, layering your sound treatments – at the expense of more channels on your mixer – will give you unparalleled control and ease of tweak. Be organised with your mixing structure and

you're guaranteed to reap great results. **FM**

Layering your treatments will you give you immense ease of tweak

something really good about paralleling a vocal track into an old Phase Mistress or splitting a bass track into a real SansAmp. Somehow the 'real' thing has those unmistakable analogue quirks that make parallel processing like it was intended. It

NEXT ISSUE

Pick up *Future Music* next month for the latest on mastering, compression and winning the loudness war. **FM228** on sale 15th June

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FOO FIGHTERS, PIXIES, GOMEZ

TONY PLATT

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SNOOP DOG, WILLIE NELSON

TROY VAN LEEUWEN

GOTSA, A PERFECT CIRCLE, SWEETHEAD

ADRIAN BUSHBY

U2, FOO FIGHTERS, NEW ORDER

JACKNIFE LEE

REM, SNOW PATROL, GREEN DAY

DOM MORLEY

AMY WINEHOUSE, MARK RONSON

ENDA WALSH

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Bob Marley, Thin Lizzy,
AC/DC, The Stranglers,
Motorhead, Buddy Guy

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IN THE STUDIO WITH...

Morgan Page

He's a master of smooth, layered mixes and can perfectly blend acoustic and electronic elements into commercial Dance gold. *Chris Barker* travels to LA to meet the multi-instrumentalist and Grammy-nominated producer



FM: It was a very different industry ten years ago. Tell us how you got started.

Morgan Page: "Well there were no MP3 blogs, no MySpace, so to get played on radio was still a huge deal. Some of the local college radio DJs in Burlington Vermont started playing some of the tracks I had sent them on cassette. That led to me trying to DJ some of these radio shows myself. I started doing these regular late night mix shows that eventually lead me to trying to make tracks myself with an MPC and some synths. I created a little basement setup at my folks house while I was in high school then with the releases I had on Nordic Trax and some other remixes I was able to start investing in more gear. I remember reading *Future Music* at the time and reading all the English spellings of 'analogue' and 'colour' and used to write them like that instead of the American spelling."

When was the big break?

"A lot of stuff was bubbling under when I did some tracks for John Digweed's label and Satoshi Tomiie but I suppose it never really blew up until the Deadmau5 mix of *The Longest Road*. When that track got the Grammy nod it and all that attention it really was the tipping point. It's strange because you can work at this stuff forever and not get anywhere. You always need that little break."

When you finished *The Longest Road*, did you realise it would do so well?

"I knew there was something special in the song but I had no idea it was going to do as well as it did. The label was really uneasy about paying a big fee for a Deadmau5 mix, but he was on fire and I really wanted him to do the mix. I think it was six thousand dollars for his remix of that track, which is nothing compared to his rates now I guess. But it was totally worth it and I'm so glad that track did what it did. I can play that track anywhere in the world and people know it."

Have you always been on Pro Tools?

"I used Logic for a bit when it was owned by Emagic and even though it was better for MIDI stuff I got used to Pro Tools when doing a class on film and TV. It's the industry standard and for me it's never worth changing the DAW I know now. It's so easy to get hung up on the gear with all this boutique stuff,

From his early development as a college radio DJ, Morgan Page has become one of the USA's biggest Dance artists. With remix credits for everyone from Madonna to Katy Perry this Progressive and Electro House star certainly knows his way around the studio. Recently Page released his second album, *Believe* and invited *FM* to see his brand new studio setup.

After recently moving, Pages new studio is in the sunny hills of Los Angeles and is a mix of hardware and software, all recorded using a Pro Tools system around Pro Tools LE and a Digi 002. His fusion of acoustic and electronic sounds has lead Page to purchase a mini grand piano in a space next to the control room which is slowly being developed into a live recording space. So, after Page explained to the *FM* crew about the post-interview chilli, bacon, pastrami and cheese burgers he was going to introduce us to, we sat down to chat about the nuts and bolts of becoming successful in producing Dance music in America.

but at the end of the day you have to ask yourself whether this six thousand dollar microphone really made the difference. The M-Audio Sputnik I use is a bit of a chameleon really and I can make it sound very different using software processing. I tend to go in pretty clean with it. I've had vocalists bring in stupidly expensive vintage microphones, and yes, they are good, but I'm like 'really? This is what you paid all this money for?'"

What do you prefer doing? In the studio or in the DJ booth?

"It's never an equal split really is it? I suppose for me I really do love to be in the studio. It's a control thing, I think. In the studio I can go in with a goal and control the situation to work towards that goal. You can't really control a DJ gig to whether it's going to go well or not because you never know what's going to happen. Part of that is the fun with DJing as you never know who you might meet and you can connect directly with fans. I have this process where I'll go and speed-write in the studio for a day and when I come back, I have all these little ideas that I don't remember writing."

Your DJ kit is an Allen & Heath Xone 4:D and Ableton Live?

"Yeah, I started with vinyl then to CDs and for a while I was caught up in the whole debate about whether laptop DJing is 'real' DJing. But, now for me that debate is completely over. It's always a steep learning curve when you start a new bit of software, but I had that epiphany moment with Ableton when I read up on how to warp your tracks better. It was so much quicker than the way warping was explained in the manual."

How do you find time to prepare and warp up all your records?

"Well most of the time I'll be fairly prepared, but often I'll start warping records and sorting out my tunes an hour before the show, just to keep things exciting. I have little clusters of tracks I like to play but I never know really which tracks will make it into the set and at what point."

Can we expect more PA or live-based shows?

"Maybe, I think the next step is bringing in singers



Akai MPK25

"I use this a lot actually, it must remind me of playing the old Casio SK1 or something. The keys on it feel fantastic, it's such a cool little keyboard."

the studio. I'm going to be borrowing my friends Wurlitzer and maybe get some other real instruments in there. I just want to get more bread and butter instruments that you don't have to do a lot with to get a great sound."

there aren't neighbours close by, so I can use guitar amps more without worrying about levels."

Will you still keep the strong song-based structure?

"Yeah, although it can be difficult because people compare the Deadmau5 mix of *The Longest Road* to the original and it's hard to explain that the Deadmau5 mix is the track completely distilled to its essence for the club. The original tracks weren't really meant to be club tracks, but I think the new material will be much more club-focused. The last album *Believe* was exactly what I wanted it to be. It was very singer-songwriter, slightly cinematic and much more song-based. The new material will be a bit more fun and aggressive, you know?"

What did you learn while setting up the new studio?

"The biggest thing I learned is that moving to a

I'll start warping records and tunes an hour before the show, just to keep things exciting. I never really know which tracks will make it

more often, especially for festivals. I'd also like to start bringing the synths on stage and go that way too. I saw Miiike Snow recently and it was so cool seeing that type of show. It has a really organic feel to the overall sound."

Where do you see your studio going?

"Next step has to be bringing more instruments into

Can we expect a more natural organic element and less synthesized sound?

"I think as far as the sound goes it will probably get much louder and more aggressive because my last studio wasn't acoustically treated and I think the neighbours could hear the kick drum louder than I could! My new place is all acoustically treated and

Yamaha Motif XS

"I really like the keybed of the Motif – it's sort of DX7 style, but I rarely use the sounds and never use the sequencer features on board."

Moog Voyager

"One of my main 'go-to' keyboards for new sounds. I love it."

Recording Vocals with Morgan Page

It's the little things that make a great sound

"First thing I do with vocals is let the singer get comfortable with the room and the signal chain. I do some basic level checks to get the peaks in check, and get a feel for their dynamic range. I keep the effects super minimal so it doesn't flatter the sound and mask their sense of tune. I'll add that stuff later on. I go in fairly clean to Pro Tools, with a little bit of compression. It's really important to get their headphones loud so that they're loud and don't need to push it. It really makes a difference. I never use vocal booths. They stand behind me and we both use

headphones. I'll communicate with them via the talkbox switch on my Dangerous Music D-Box. I usually loop the track three or four times, go make coffee, and let the vocalist relax and get a feel for their voice with the mic. We just feel out different melodies and then form the lyrics next. After the lyrics are sorted, it's time for overdubs. I'm a big fan of doing layers, but keeping a very strong centre vocal. I'll have them do each pass of overdubs at different intensities, distances, enunciations, and octaves. This way each vocal pass really adds something interesting to the mix."



bigger room helps a lot with the bass response because you can position the monitors farther away from the wall, and that a house is a million times better for soundproofing than an apartment complex! Do whatever it takes to move your studio out of a complex with shared walls! Also don't forget that proper ventilation and lighting is a huge deal. Don't underestimate these as they make a big

but time is money and this stuff can take forever! Hire a professional and save yourself a lot of time and mess!"

How do you find the long tours?

"It can be a bit strange sometimes when you haven't opened Pro Tools in two weeks because I definitely miss the studio when I'm away doing shows. It can

What do you make of the difference between the US and European scene.

"It's interesting because here in the States we're scratching our heads about what's going on in Europe and vice versa it seems. There seems to be a big demand for the European DJs to play over here and produce American acts, but that's because it's totally different in the USA. There's just not the

same infrastructure for Electronic music as there is in Europe. The only thing you hear on the radio here is Pop, and it's the same eight artists being played over and over... It's all about selling liquor here in the US and because the age limit is 21 it's much more

difficult for younger people to actually come out and see DJs play."

Now you have the room for a console do you think you'll get one?

"I don't know, I'd love to have the *flavour* of a Neve console in here, but I doubt it will make the music that much better. I'm happy with the streamlined set up I have now although I'm looking at getting some new main monitors. Again I was shopping around and they're going to be \$6k each. You have to wonder if I will be making better music after I buying these?"

So is it tempting not to invest the money in these top notch converters and bits of kit? Do you think your fans notice?

"I think the listeners just hear the song first, but it's more about what gets my own creative juices flowing. Like with this mini-grand piano I bought. It's so nice to just sit and play without needing a dongle, or to search online for updates! Dance music is my passion but I don't want to limit myself to just club music with my productions.

"I think now 4/4 kicks are appearing on the radio alongside Pop and R&B tracks it's crossing over much more. In fact, Lil' Wayne's label sampled the Deadmau5 mix of The Longest Road for the Birdman track featuring Jay Sean, Written On Her. It's really cool that things are crossing over like that and now I send my tracks over to their label as stems hoping they'll sample some more [laughs]."

It must also be frustrating though, with a certain audience essentially dancing to your track because it's Hip Hop now, but they didn't like House...

"I think in the USA there's all this paranoia about Dance music that if you listen to it then you're either taking drugs or gay. It's something nobody ever talks about but I think that maybe that's why it's had to cross over into the R&B and Hip Hop genres to become slightly more acceptable."

You must get stick for being the more commercial side of Dance music too?

"Yeah, especially in Europe. I think sometimes they don't get it. I think DJ Mag said something like, 'what's with all these songs?' [laughs]."

I think in the USA there's all this paranoia about Dance music, in that if you listen to it then you're either taking drugs or gay

difference with comfort in your working environment. Curtains and big Persian rugs helped with reflections too. It's a different approach than just using panels, but I love it so far. I think it's good to try DIY construction once just to get a feel for it,

knock your ears out after playing too many shows in a row also. Eventually I'd like to get to the stage where I can cut down on the amount of shows I do and maybe get higher fees so that I can spend more time in the studio."

Page's studio is filled with plenty of hardware synths – particularly DSI



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Do you think you'll get round to buying more outboard hardware?

"Well, it's not really outboard, but I'd love to get the UAD2 card soon as I really like the look of the plug-ins that are available for that. I think there's just an issue with latency using the UAD with the Pro Tools version I have. Maybe I'll get a couple of Neve 1073 or some other really boutique pre amps? Oh, and maybe a Distressor too for vocals."

"It's tricky with vocals because you don't want to colour the sound too much when recording but you have to limit and compress them slightly. Lissie [Maurus] who sang on *The Longest Road* is really loud and dynamic, so I have to run her headphones really loud to stop her going off far. That makes for a lot of work later doing comps and vocal rides, but the end result just sounds much better. In fact, that Waves Vocal Rider plug-in will hopefully be awesome for that. I need to check it out."

Are you a fan of Waves plug-ins?

"Yeah, I mean they're expensive but they're definitely worth it. The Tony Maserati collection is just awesome. For me some of the best gear purchases are instruments. I think it's so easy to get obsessed with software."

How do you start with a track?

"Typically I'll start with a beat, then a chord progression and a bassline. Everything generally starts with the kick and snare then builds naturally from there. I always start with perfectly tuned instruments first then record the live instruments to avoid any issues with tuning."

What is your approach to remixing?

"I focus on the vocal and trash 90% of the other parts unless there's a particularly inspiring guitar or piano riff. I figure out the key then create a beat that compliments the vocal, then build a chord progression, bass, and other parts like arpeggios that support the lead. I find that it really helps to focus on the kick and snare and some syncopated loops."

"Stylus RMX plays a big role in the drums, the Moog Voyager is almost always used for basslines, and the Prophet 08 SE for my chords. I'll often build drum sounds with my Dave Smith Instruments Tetra, as well. I also like to build an additional hook usually by chopping up parts of a vocal to take the song to another level."

"And I always switch up the chords to make it more epic and emotional. With most remixes I end up compressing, re-EQing, and tuning vocals even harder to make them really stick out in the mix."

What's next for you then?

"Next up is a relentless world tour for my *Believe* album, which is out now on Nettwerk. Besides that every other spare minute, will be spent working on my next album!" **FM**

WANT TO KNOW MORE?

For more information on upcoming releases, tour dates and the latest news from Morgan Page, visit his official website at morgan-page.com

M-Audio Sputnik

"This is a great mic for the money and I can make it sound anyway I want with software processing. But I generally go for a clean input signal."

Digidesign 002

"As you can tell I don't really use this that often. I thought I'd be all hands on and using the faders for automation but that didn't happen."

Korg nanoKontrol

"I had to apply a hack to this to get it to work with Pro Tools but it's a great little controller for transport and other little duties."



Mackie HR828

"Now I have a big room, it's tempting to get some big monitors, so I've been looking to replace these too. I need to check out the Event Opals, the Focals and the latest PMCs at some point."

Morgan's Software



Stylus RMX

"Stylus is the first thing that pops up in my session template. It's deceptively powerful for drums."



iZotope Ozone 4

"This is my main mastering plug-in and go-to limiter."



PSP Vintage Warmer

"I use this before Ozone to beef things up and compress the main mix."

DSI Tetra

"I've made my own 'mini synth' with a Tetra and this Akai MIDI keyboard."

DSI Prophet 08

"This is the special edition. I love all the Dave Smith Instruments synths."



ON THE DVD: Morgan Page Production Secrets

1



Fight For You

Morgan takes us through *Fight For You* from *Believe* showing how he constructed the beat, melody and unique vocals.

2



Alligator

In his remix of Tegan and Sara's *Alligator*, Morgan shows us how he layered white and pink noise and used swing for the drums.

3



DSI Prophet '08

Analogue synths are a big part of Page's sound. He takes us through his Prophet 08 synth and explains why he loves it.

4



Moog Voyager

The Moog Voyager is another of Page's favourite synths and this tour of sounds and functions show just why he's such a fan.

LOGIC ESSENTIALS



Evolving Sequences in Logic Studio

Sequenced sounds form a backbone of plenty of Electronic Pop and Dance tracks, yet all too often, these can sound functional rather than exciting.

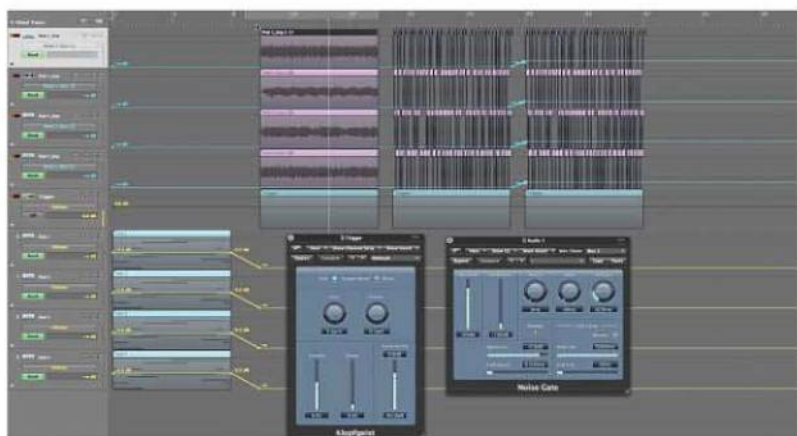
Jono Buchanan explores ways to squeeze extra life into your synth sequences...

Sequence sounds are the busy, often short sharp sounds you're likely to hear in all genres of Pop and Dance music. They can be created either using an arpeggiator or by drawing or playing a succession of notes. The 'classic' sequence sound features notes of identical length and volume, but as this

feature is dedicated to find ways to make these popular sounds more interesting to listen to, we'll be eschewing tradition in favour of creativity!

Pads as sequences

First up, I've looked to get creative with another studio staple, the sustained pad.



Using Klopgeist and a sidechained Noise Gate to create syncopated pads

THE EXPERT

Jono Buchanan
composer,
producer



Jono Buchanan writes, produces, mixes and sound designs with Logic each and every day. He's a genius. So there.

Pads take up space and sometimes offer an easy, and some might say lazy, way to provide harmony in Pop and Dance records. You can hear this in the first clip on the DVD. I've created a basic chord progression for a first pad sound and then I've dialled up four additional pad sounds (all ES2 presets) and copied the same part to each.

What you're hearing in the first clip is that composite four-part sound and while it benefits from the richness you'd expect of four stacked sounds, it's pretty clear a part like this would completely dominate a track and mix built around it. Better then, to try to turn a part like this into something more 'sequence-like'. I've done this by bouncing each of these MIDI regions down individually as an audio file, using Logic 9's 'Bounce In Place' feature (just right-click the region to find this function in the pop-up menu to turn MIDI information into audio clips).

Once each part is bounced, I've then panned each of the parts, with the first panned hard-left, the second mid-left, the third mid-right and the fourth hard-right.

Vector Sequence

Usually, creating a sequence part means playing or drawing in a series of notes to either form a 'strict' arpeggiated pattern, or a more random sequence that nevertheless provides busy-ness and drive to support the harmonic content of your track. However, it's perfectly possible to get this momentum from a single note 'drone' part, provided you know how to 'animate' the sustain of a sound.

One way is to use LFOs and in issues gone by, I've explained how using random output square waves can produce a sequence-like effect on a held note. Logic's ES2 synthesizer provides an alternative though, in the form of its vector, which represents a great way to get unique movement into held notes. On the DVD, I've done precisely this by recording a single note drone accompanied just by a kick drum that is there primarily to act as a metronome so you can hear the sequence come together.

In the first clip, you can hear drone and kick with the held note benefiting from a touch of reverb and delay. In the second clip, I've enabled the Vector by selecting the X-Y Pad option on the right-hand side of the ES2's GUI. Once selected, you have a chance to choose two parameters to 'animate' in this way, so I've chosen the cutoff frequency to act as the 'X'

parameter and resonance to act as the 'Y'. I've then right-clicked the Vector sequence itself and selected '16/16 Loop' which does what it says on the tin by providing 16 steps per bar which will loop round and round. On the DVD, the sequence you can hear in the second clip is created simply by clicking on each Vector point in turn and moving the square in the X-Y

pad to a unique location, with the chopping from bright to dull creating most of the movement.

In the third clip, you can hear the whole sequence become progressively brighter and duller, as well as the resonant 'fizziness' of the sound change too, as I've automated some movement for these two parameters so that there's an increased sense of change as

the sequence progresses. In the fourth and final clip, you can hear how this sequence works with the original drone added underneath it and transposed down an octave – there's plenty of drama here now even though there are only three instruments playing and two of them are timbrally the same! Remember, only the Vector movement separates the original drone from

its 'sequenced' sibling.

Once you've tried this, it's then worth exploring the Vector's other parameters to provide additional movement. Of course, there'd be nothing to stop you duplicating a track with your ES2 sequence to a new track and creating a modified Vector envelope there to create yet more complexity and variation in your productions.



Build Your Layout

Right = brighter, left = duller, up = fizzier, down = er, less fizzy. Add a 'location' for each vector step

On Axis

Here's where X and Y values are chosen and assigned

Evolved Sequence

These 16 dots represent consecutive 16th notes – add a cutoff or resonance value to each one by moving the target in the X-Y pad



Klopfgest's percussive bursts are perfect for sidechaining

Trigger Happy

Next, I've set up a new software instrument in the form of Klopfgest, which I've set to produce a hard, short percussive tick sound. I've set Buss 1 as Klopfgest's output and



1. Pads to Sequence: Turn a group of pads into a shimmering, shifting, stereo sequence. Wanna know how? Listen to this!

2. Vector Sequence: Hear the evolution of an ES2 patch from a long sustained drone to dynamic sequence in four steps.

switched Buss 1's output to 'No Output' so that it's not being routed to the master output. Then, I've gone back to each of the pads on their audio tracks and inserted a noise gate onto each channel, selecting Buss 1 as the sidechain source and

course, triggers them all together via their gates, as you can hear in the second clip.

Once you've got the hang of this, it's time to really turn this into a sequence-like sound. Chop all four audio regions into 16th-note slices using multiple divide

(alt-click at the first 16th note using the Scissors tool) and then go back to the pointer tool and select one of the four notes from each of the parts for every 16th-note.

If you hold Shift while clicking, your previous selection will stay selected as you click the following region, so

anchor down Shift and go through to pick out your notes. Then, very carefully, select 'Invert Selection' from the Edit menu. Suddenly your selections are 'toggled' – things you had selected no longer are, while

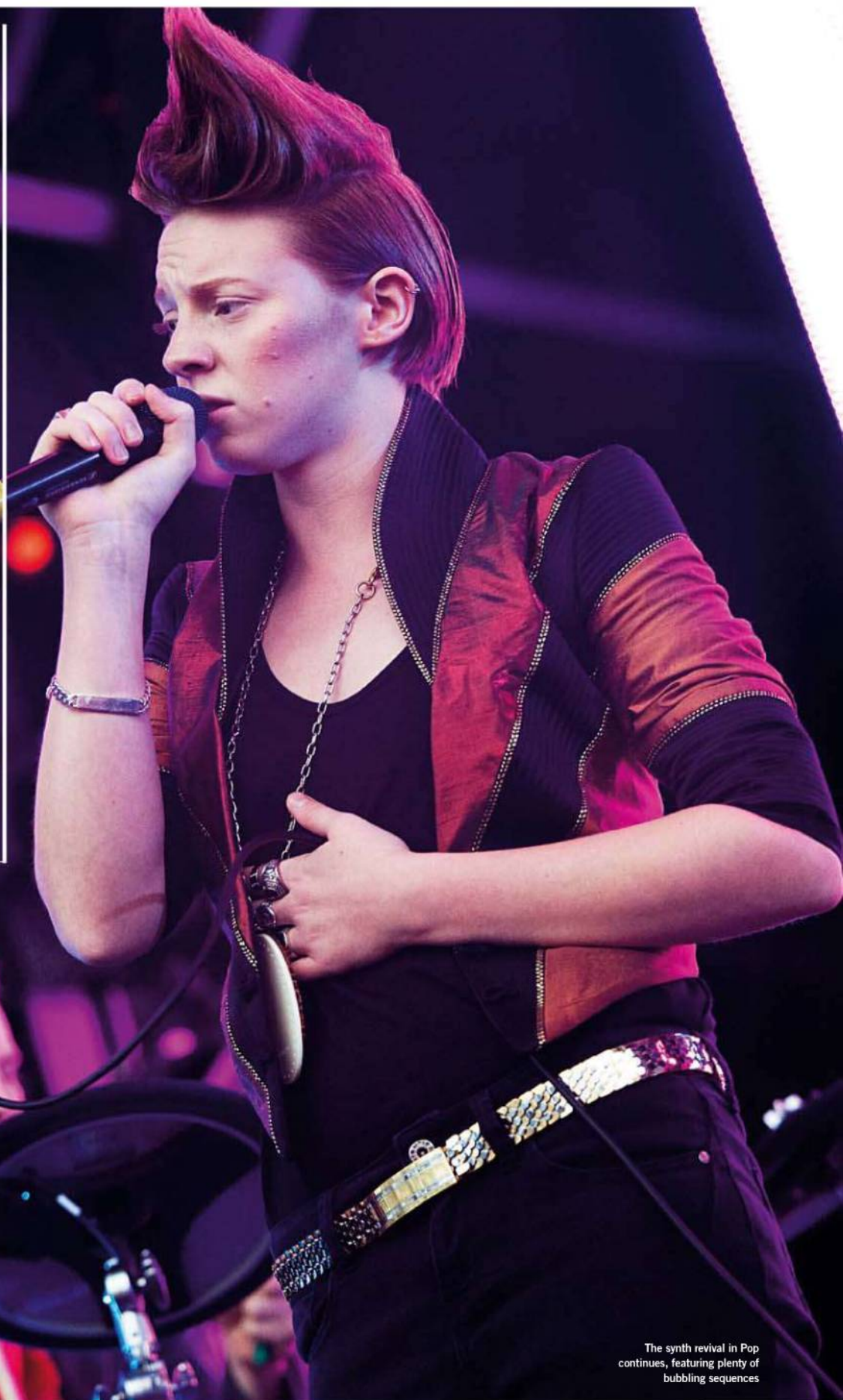
I've set Buss 1 as Klopfgest's output and switched Buss 1's output to 'No Output'

selecting a fairly generous Threshold level, with appropriate Attack and Release settings too. Now the fun part – I've pressed record and played in a 'sequence'-style rhythm for Klopfgest underneath the pads which, of

Sequencing Success

The popularity of sequencing continues...

So why do sequence parts work so well and how come they seem so universally popular? After all, where would Pop and Dance records be without them? The history of busy sequences of this type stems right back into the glory days of analogue synthesizers. They might only have been able to play one note at a time but if you could run synths through arpeggiators or dedicated sequencers such as the famous ARP 1601, then you could build up sequences of individual notes to create the illusion of constantly shifting harmonic chord progressions. For two 'historical' examples of a masterclass in this type of sequencing, listen to Jean-Michel Jarre's *Oxygène* and *Equinoxe* albums which layer melodies, often string-like pads and layer after layer of gently bubbling sequences. Despite synthesizers developing into polyphony and multi-timbrality, the hunger for busy sequence-like effects didn't diminish at all. Think about the introduction to Duran Duran's *Rio*, or the driving 16th note sequencer parts than run through the Pet Shop Boys' *Suburbia* or high-energy Pop hits like *Stop* by Erasure. Fast-forward to the here and now and still the fascination and dependency goes on. Listen to *Bulletproof* by La Roux, *My Delirium* by Ladyhawke or any other of hundreds of current Electronic Pop and Dance records. What's clear is that if you want drive and drama in your tracks without just being reliant on drums and bass parts, getting creative with sequences could be the key to unlock more interesting productions.



The synth revival in Pop continues, featuring plenty of bubbling sequences

Rhythmic Sequences

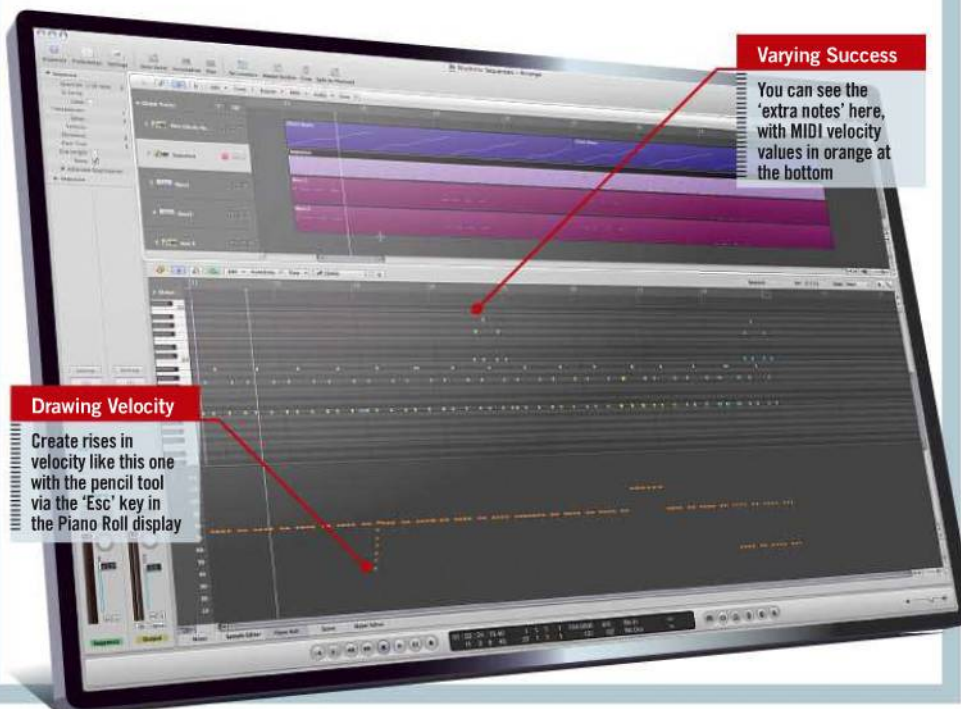
Sequence parts most frequently become predictable because their sound doesn't alternate and the notes they play become rigid and as soon as your brain detects an unyielding pattern, it figures it out and stops paying attention.

A few simple variations in a sequence part can prevent your listeners losing interest and musically, your tracks will become richer too. On the DVD, you can hear a basic track I've created called 'Rhythmic Sequence'. The first time

this plays, you can hear how quickly your brain gets used to the sequence sound which is coming from Logic's basic Klopfegeist instrument – as it's the same in every bar, you soon lose interest. Second time around, however, some subtle variations make a lot of difference.

Firstly, I've increased the grid size to 1/64 so that I can enter up to four notes per 16th note. I've created a couple of moments like this, using velocity to ramp up the values into a downbeat, creating an almost snare

drum like effect. I've also doubled part of my sequence up an octave and created another moment for the sequence and the accompanying glitchy drum loop which switches to triplets (1/12 in the grid), so that the relentless nature of the 16th note pulse is broken. A few simple tricks like this provide some nice moments of 'ear candy' and as I've placed these moments carefully between the dominant bassline figure, the sequence now provides pleasing variation from one bar to the next.



Drawing Velocity

Create rises in velocity like this one with the pencil tool via the 'Esc' key in the Piano Roll display

Varying Success

You can see the 'extra notes' here, with MIDI velocity values in orange at the bottom

unselected items are now highlighted. This means you can delete all of the notes you didn't want from your four tracks of pads very easily so soon you should be staring at a hopefully random pattern of audio regions with one slice per 16th note. As you can hear in clip three, the result is great – Klopfegeist is still picking out the regions that correspond to any note you've played as a trigger but now only one part plays each time, with the pan producing a wonderfully 'stereo' result.

Complete the picture

In the fourth clip, I've sent all four audio channels to a little reverb and delay and now the whole thing comes alive. It would be easy to turn the volume down and build a whole track around this, or add additional effects to individual tracks or all four to create yet more movement. Remember, any effect added as an insert will influence just one of the four sounds, so it would be



ON THE DVD

3. Saw Sequence: A classic 'filter' saw sequences is brought to life with some pan and envelope automation

4. Rhythmic Sequences: Bring some extra rhythmic complexity to your sequences and they'll come alive

perfectly possible to create a more distinct sonic identity for any of these sounds simply by tailoring a group of carefully chosen plug-ins to any one.

Think creative

This is just one way to go beyond the 'common' sequence-style effects offered by a simple sound pulsing away in the middle of your tracks. Through the boxes in this tutorial, I've provided some more tips about how you can get sounds like this moving but, of course, the suggestions here are the tip of the iceberg. The important thing is that next time you're starting a track from scratch and you're incorporating a sequence, you look to be as creative here as you are with all of the other elements of your mix. **FM**

LOGIC TIPS NEXT ISSUE

Jono will return in video form to lift the lid on yet more things Logic. Miss it at your peril... **FM228** on sale 15th June

Saw Sequence

Without question, the most common 'trick' to treat a sequence part to is use filter movement – opening and closing a low-pass filter on a saw-wave based sequence is a sound we've all heard a million times before. All the more reason to try to find more interesting ways of getting variation into your sequences from one moment to the next and I've tried to demonstrate some basic but effective starting points in this clip. First time around, I've created a little track for a very simple sequence sound that is producing the effect we've all heard so often, with its predictable filter movement.

Second time around, I've preserved this movement but added to it with three extra parameters. Firstly, I've automated pan and drawn variation into the sound to keep it shuttling from left to right. Again, I've prevented this movement from being too predictable – rather than moving evenly from left-to-right, some panning is slow, whilst other parts dart back and forth more quickly. Then, I've turned to the volume envelope and chosen two parameters to modify here – decay and release. The decay will determine how long the sound takes to die away from its attack point, as my sequence has a sustain value of zero. However, this doesn't mean that release won't work – in fact, as you can hear towards the end of the sequence, the much longer notes here are produced as a result of higher release values.

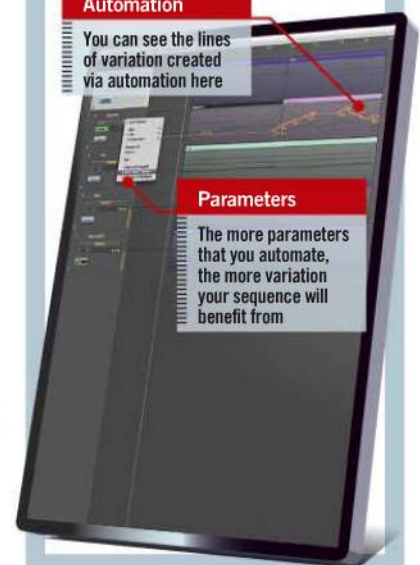
As a result, the sequence ebbs and flows and even threatens to 'take over' the track, providing much more life and playing a more musical part in the development of the sequence. Remember, to keep things constantly changing, just go into Latch mode and keep drawing in variation, either via your mouse or control surface.

Automation

You can see the lines of variation created via automation here

Parameters

The more parameters that you automate, the more variation your sequence will benefit from



The Science Behind CV/Gate

This month we take a step back to the days before MIDI to look at control voltage. **Greg Scarth** explains why it's still relevant...

Before the advent of digital control protocols such as Roland's ill-fated DCB and the industry standard MIDI format, there was only one realistic method for interfacing all your pieces of equipment with each other. Control voltage, more commonly known as CV and more accurately known as CV/Gate, is a system that uses very simple analogue electrical signals to trigger equipment. Most commonly found in analogue mono synths, CV is well worth getting to grips with if you want to get the most out of your vintage gear, but it's also seeing something of a resurgence in new products. We decided it was time to take a closer look.

How does it work?

The CV/Gate system comprises two parts: the control voltage itself and a separate gate (sometimes also known as trigger) signal. Both are required to trigger a note, but the

CV element can be thought of as the part that determines the pitch and the gate is the part that determines the note on/off timing. As such, CV control requires two separate signals, often transmitted over separate cables for flexibility.

Without wanting to look too closely into the details of synth circuitry, the operating principle is relatively simple. Each time you hit a key on a CV control keyboard, a gate signal is sent and the voltage of the CV signal changes in accordance with the pitch of the key that has been pressed. As such, synths are told when to play by the gate trigger signal and are told what pitch to play at by the control voltage.

Given that it emerged in the years before standardisation of equipment control protocols, it's probably unsurprising that there are multiple variations of the same general operating principle. Most notably, not all synths expect control voltages in the

same range. Korg and Yamaha synths tend to use the Hz/V (Hertz per volt) system, where the frequency of the oscillator rises and falls in proportion to the voltage of the CV signal, whereas most other manufacturers favoured the V/Oct (volts per octave) system, in which the voltage rises by one volt per octave. Likewise, different synths expect subtly different gate signals. While some synths use a positive trigger, where the presence of a voltage indicates that a key is being pressed, others use a short-circuit trigger system where the gate signal shorts out and drops to zero volts when the key is pressed (also sometimes known as a negative trigger or S-Trig). The voltage of the gate signal also varies between different manufacturers. The good news is that it's not too difficult to work with different systems so long as you've got appropriate converters.

At this stage, you may already have figured out one of the most significant limitations of the CV system. Since we only have one signal for determining the pitch and one for the timing of note triggers, it's impossible to send polyphonic signals via a single pair of CV/Gate connections. In general, CV/Gate tends to be found on monophonic synths, so this isn't a problem. However, it's not impossible to work around the problem using multiple connections. Most notably, Oberheim's Four Voice and Xpander synth modules boast multiple pairs of CV and Gate connections on their rear panels, allowing external equipment to control each of the units' voices independently. In the modern era, a handful of polyphonic MIDI-to-CV converters are also available, opening up a number of options for polyphonic control.

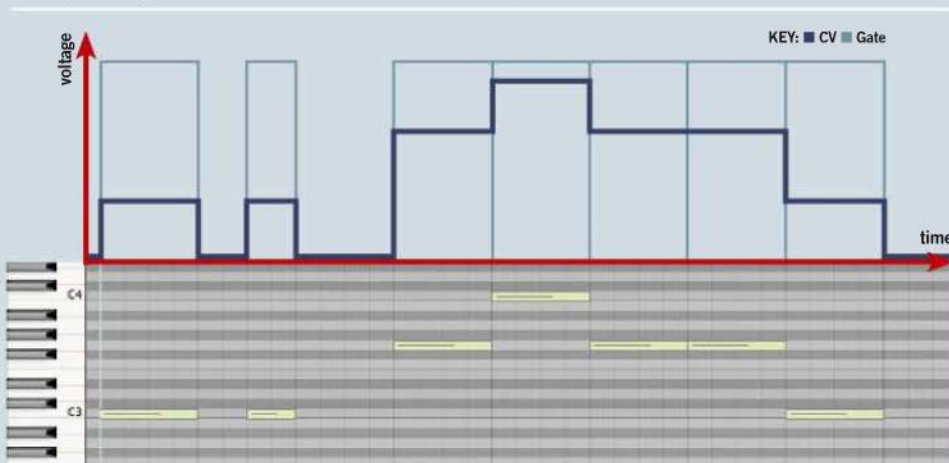
Not just for notes

So far we've looked at how CV can be used to trigger notes, but control voltage isn't just for sending note information. Since control voltage signals are already used in the internal circuitry of analogue synths, it's relatively simple for manufacturers to build more advanced CV control routing options into their synths. When you patch, say, an envelope generator's signal to a VCA on a semi-modular synth like the Korg MS20 or ARP 2600, you're routing a control voltage from one section to another. If you route a square wave LFO to the trigger input of a step sequencer, you're effectively using it as a gate signal.

Clever routing of CV signals in a semi-modular or modular synth setup can give you incredible control over any variable you can imagine. Although most signals are considered either to be control voltages or audio signals, there's no reason you can't mix the two up. For instance, sending an

How CV/Gate Tracking Works

Comparing CV/Gate with a standard piano roll



audio signal to a CV input effectively allows it to work as a control voltage. On the other hand, an LFO signal is typically intended as a CV signal but turn up the tempo, route it to an audio input and it can be used as an audio signal just like any other oscillator. The possibilities are endless.

One of the great advantages CV offers over digital control stems from the fact that each signal is truly analogue, meaning it offers infinitely accurate resolution without any of the stepping, quantisation error or 'zipper effect' associated with using digital signals to modulate synthesis circuits (see the *Zipper Effect* box for an explanation of this problem). As a result of this, filter sweeps, amplitude envelopes, LFO modulation and pitch bends can be much smoother than those achieved by digital emulations or virtual analogue synths.

MIDI-to-CV

London-based Kenton Electronics are the masters of MIDI-to-CV conversion, offering a number of solutions for converting MIDI note data to CV signals. MIDI-to-CV converters (and, indeed, CV to MIDI converters) allow older analogue equipment to interface with DAWs, modern controller keyboards and other MIDI-capable equipment. Perhaps most notably, this means that it's easy to sequence complex patterns on your analogue synth without having to use a cumbersome analogue sequencer. Good news for those of us without the keyboard skills to play all our riffs live. One of the other great advantages of the CV system is that it's possible to send just about any signal to any control input. As such, the more advanced MIDI-to-CV converters on the market allow any MIDI control signal to be converted to a voltage

What is the Zipper Effect?

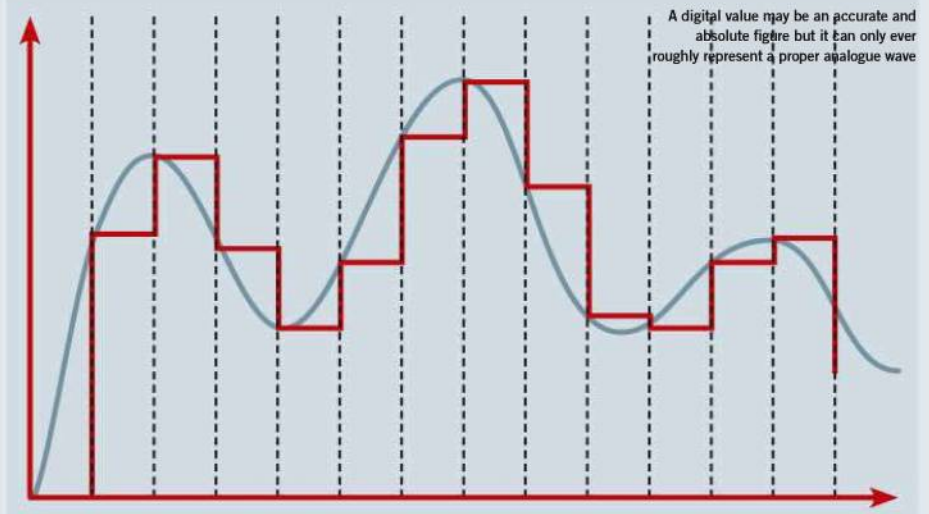
The zipper effect is a phenomenon which relates to the inherent inaccuracy of digital signals. Named after the way a zip travels in a series of small steps, the zipper effect in audio relates to the way an analogue to digital signal conversion quantises continuous values into a series of pre-defined discrete steps. MIDI uses 128 values for standard variables such as velocity and assignable continuous controller (CC) commands. The zipper effect becomes a problem when we move between discrete

values and the stepping sound is imparted to the sound signal.

For example, consider a situation where a MIDI CC signal is assigned to pitch. Turning a knob to increase the MIDI CC value will step through each of the 128 discrete steps in turn, but the level of pitch bend can never be anywhere in between these steps. If we try to bend slowly by a large amount, it soon becomes apparent that the pitch of the sound is jumping from one step to the next rather than gliding smoothly between them. As a

continuous voltage, CV effectively has infinite values and can move smoothly between them all. In a more complex synth patch, control voltages might be used to modulate a number of amplitudes, oscillator pitches and filter frequencies, among others.

Although a digital control signal in a 'virtual analogue' synth might have much higher resolution than a MIDI signal, this is still one of the main reasons why analogue synth sounds can never be perfectly recreated by digital emulations.



polyphonic conversion, a handful of products from analogue-focused companies such as Doepfer allow a single MIDI channel to be split into multiple control voltage and trigger signals. Polyphonic converters really come into their own for taking control of modular synth setups. While the vast majority of analogue synths simply don't offer any way of handling polyphonic inputs, a modular setup can be used with a polyphonic MIDI-to-CV converter in order to create a monster modular poly synth.

The future

There are a number of reasons to believe that the CV control method is here to stay despite the preponderance of digital control protocols. Firstly, MIDI-to-CV converters and new software controllers mean that we can take more control of CV signals than ever before. MOTU's recently released Volta plug-in, for example, allows users of Logic, Ableton Live or Digital Performer to send CV and gate signals directly out of audio output

sockets on their audio interface, offering outstanding DAW integration of CV synths.

The second major reason is that manufacturers continue to release new products with support for CV control. Oberheim's new SEM synth module, for instance, is available in two versions, one with fully-featured MIDI control and one with absolutely no MIDI capabilities. The latter is available simply because of the flexibility that the CV patchbay option offers in terms of sound design and signal routing.

Not only does this mean that the CV-equipped SEM is more versatile and can talk nicely to your vintage gear, it also opens up a world of options for linking it up to modular gear and semi-modular synth modules. The large number of companies and DIYers building synth modules has helped to develop de facto standards for control voltages. Likewise, with a number of affordable semi-modular synths on offer, the outlook for CV control is good. **FM**

KNOWLEDGE BASE NEXT ISSUE

Stay tuned to *Knowledge Base* for more studio facts and industry insight. Next issue, *FM228* on sale 15th June

There are a number
of reasons to believe
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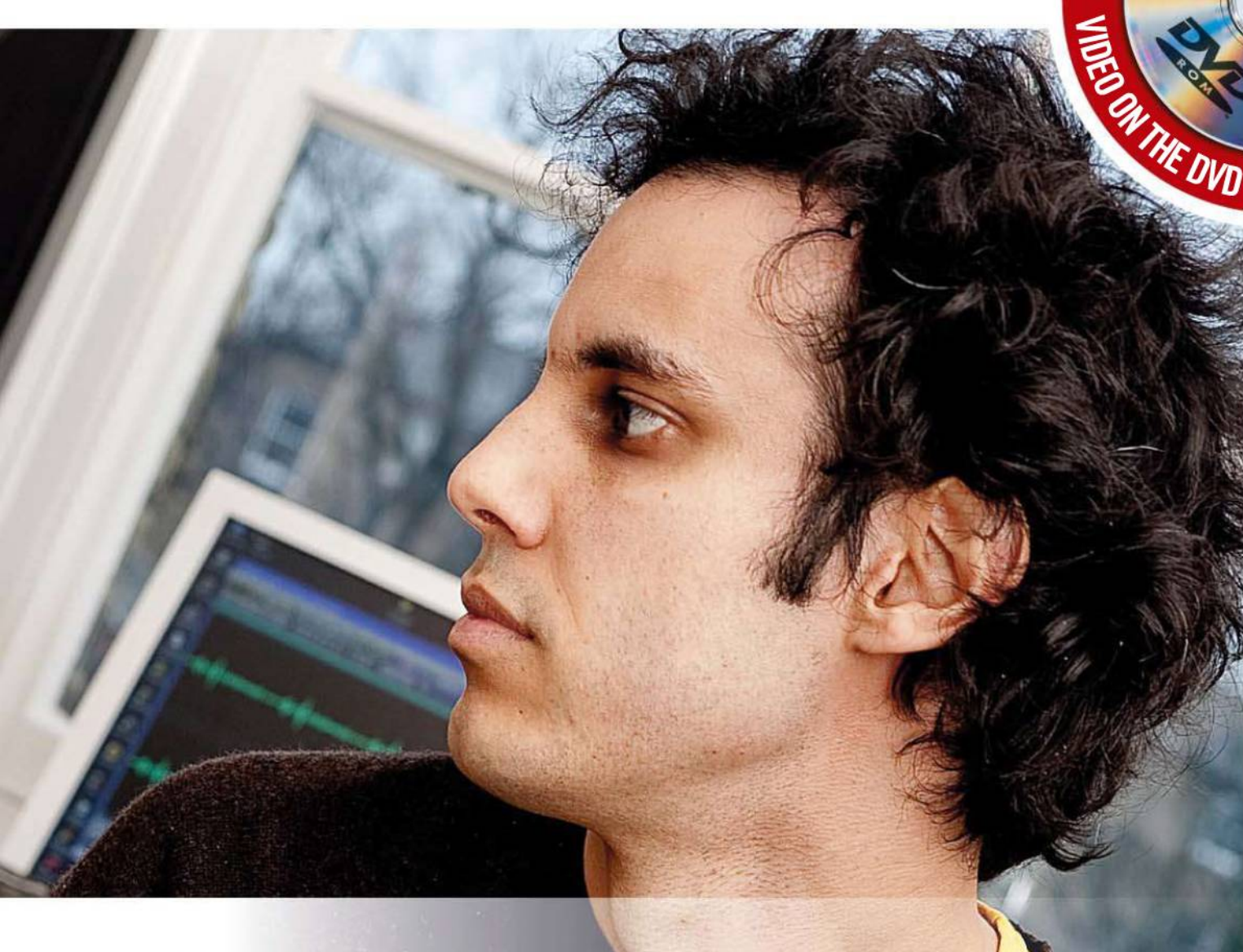
so you can send it to a CV input. Whether you want to do something simple like sending a MIDI CC value to control your LFO speed or you want to get a bit more advanced and use MIDI note velocity to automatically modulate filter cutoff frequency as you play, a good MIDI-to-CV converter will give you the option.

Polyphonic MIDI-to-CV conversion is also worth considering. Although there aren't many options when it comes to

In The Studio With | Four Tet

IN THE STUDIO WITH...

Four Tet



At the forefront of British Electronic music for over a decade, Kieran Hebden has maintained an aural stamp over his evolving sound. **Declan McGlynn** travelled to his studio to unravel his latest album

Taking a look back over Four Tet's, (aka Kieran Hebden's) discography over the past decade, it's easily enough to justify his third appearance in *Future Music*. This time around, he's coming off the back of two contrasting collaborations and a new album that takes somewhat of a meandering swerve from the familiar Four Tet mantra.

It's been twelve years since Four Tet's first solo release, *Dialogue*, and since, he's carved and crafted a genre and voice of his own with an unmistakable sound, consisting of seemingly unorthodox instruments through sample manipulation, obscure rhythms and a focus on digital sound processing. At a time when the analogue and digital worlds continue to bicker back and fourth, Hebden is a man proud to be firmly placed 'in the box', with all of Four Tet's

aural attributions coming directly from inside his computer – no hardware EQs, analogue summing, high-end consoles, or even, in the case of his latest album, mastering.

That's not to say Hebden's digital dominance as Four Tet extends to all his projects: his multiple collaborations with legendary Jazz drummer Steve Reid – who sadly passed away in April this year – saw Hebden take their sound to the renowned Avatar Studios in New York, insisting on specific outboard for the project. His work with elusive Dub producer Burial saw a mixture of 'in the box' processing and SSL console mixing, bridging the past and the future effortlessly in the resulting vinyl-only release. For Hebden, the ends will always justify the means, be it a laptop with Cool Edit Pro or a 96-channel SSL console and junk shop-load of vintage gear.

Hebden's new album, his first since *Everything Ecstatic* in 2005, sees his form take a new,

dancefloor-friendly shape, dripping with four-four kicks, sidechaining and recognisable loop-based melodies and taking on a new driving purpose.

He's taken some of his cue from his DJ sets – his residency at London's Plastic People in particular – aiming to create tracks he could drop between the usual Techno burners. It's seemed to have worked, with *There Is Love In You* peaking at number 35 in the UK charts with a showering of praise by fans and critics alike. A perfect time, then, for us to catch up with Hebden in his mix room at Miloco's The Square, London.

FM: Your sound has evolved yet again for *There Is Love In You*. Was that an intentional approach or did it happen naturally?

Kieran Hebden: "It's always intentional for me to try and make the sound change, I don't want to put out the same record again and again. It was easier on this record because there'd been a much longer

break since the last Four Tet album. When I started on this it was almost a different sound straight away, especially rhythmically. I think all the things I've been doing in between, with Steve Reid and DJing, I was building up tracks from kick drums and working at different tempos. Everything was just a bit more energetic."

Was that directly affected from your DJ sets?

"That, and the stuff with Steve – he just plays much faster. It got me feeling a different pulse through the music I was making. The stuff I'm doing now is also less Hip Hop influenced than my older stuff. It's still put together the same way – mashing samples together is the basic idea – but in terms of arrangements, things have definitely come a long way."

Tell us about your collaboration with Steve Reid. How did that come about?

"After *Everything Ecstatic*, I was feeling like it was time to do something a bit different. I'd been to this night of free Jazz saxophone and drum duos in Norway and I'd seen Hamid Drake and Fred Anderson as a duo and Paal Nilssen-Love and Mats Gustafsson as a duo and then all four of them played together. It's kind of a tradition to have this saxophone and drummer duo and I thought I should do something like that, a kind of Jazz duo only it's me playing samplers and electronics along with a drummer. I mentioned this to a friend of mine in France and he called me saying 'you won't believe who I've tracked down', and told me Steve Reid was living in Europe and he was doing a show in London. So I went to meet him and we talked and arranged to do a concert in Paris and it was kind of an epiphany, we both loved it so much."

"So we've done four albums now and it's been the main focus of what I've been doing musically for the last three or four years. I laid off making solo music for a while as I wanted a break from it. But it was no surprise to me that when I did get around to starting new solo material, that it was going to be influenced quite a lot by what I'd been doing with Steve."



Even more so on this record – it's covered in sidechaining and four-four beats. How did it differ, mixing more in a club style?

"I thought about the mixing of this record in a slightly different way, beyond studios and homes. I wanted to make tracks I could play while I was DJing and it would stand up well next to other club tracks. I started to get really interested in why some club records sound so amazing. So when I started working on the sonics of this album, I paid loads

Four Tet Live

"I have a kind of weird live setup. I've got a Pioneer DJM-800 mixer and two laptops, one running Ableton Live. Ableton plays all the main rhythmic loops, things that need to be in time, etc."

"The other laptop runs like five or six instances of Cool Edit Pro and that has all the melodies and glitchy parts. They're not synced, I just trigger Cool Edit with the mouse. One instance of Cool Edit could be playing a guitar line, then another instance could have the same guitar line and I'll be freestyling with the mouse and then a third guitar line will be playing in another instance, pitched up."

"I also have the output from the headphone slot on the Pioneer going to a little loop station [Red Sound Cycloops] and it works out the BPM. I grab loops of what's going on and extend parts of songs and things. Plus, because the timing isn't perfect – if I bring in the same loop playing in Ableton, it starts to phase and do all kinds of crazy stuff. I also have a Boss Dr Sample [SP-303] with lots of sounds like drum hits, 808



kicks. The Cool Edit laptop is also passing through the 303 so I can use the effects."

"There's also a Korg Electribe that I've only started using recently because it's got really great white noise and analogue drum machine sounds. I'm hoping to also use the iPhone using [Intua] Beatmaker, which has some really cool things. The live stuff needs to seem a bit on edge for me. If everything goes out of time during a show, it's almost a relief – the audience knows that something is actually going on. I never plan a setlist – about half an hour before I start I'll walk into the venue and try and get the vibes of the room and decide what my first few tracks will be and go from there."

I paid loads of attention to bass drums and made sure everything sounded right for the world of clubs, as well as at home

Did it ever make you consider taking Four Tet to the stage in a live band format?

"No not at all. One of the things I love about Four Tet is that it's almost humanly impossible. It's about total electronic control. Every sound you hear has been carefully constructed on a computer for a reason whereas the stuff with Steve was all about improvisation. One of the things that makes the Four Tet records what they are is that there's no room for traditional live performance in any way. It's all about sequenced Electronic music."

of attention to bass drums and made sure everything sounded right for the world of clubs, as well as at home."

And it was all in Pro Tools, in-the-box?

"Yeah I like working that way. It's a very kind of digital project and it feels natural for me to keep it in the computer and use plug-ins for EQ and stuff like that. The stuff with Steve Reid for instance, would always be mixed through a desk. The last record, for instance, we did at Avatar Studios in

New York and it was mixed to tape and it was much more a traditional Jazz recording situation. We wouldn't put a plug-in on anything, it was all about outboard. I was choosing studios because I needed Pultec EQs or PYE compressors – it's a whole other world of production."

"On the Four Tet records, one of the concepts that gives it its sound is that it's all in-the-box. It's not about budget, circumstances or efficiency – it just allows me to make the music in a creative way."

I usually don't think about the mixing while I'm working on things, it just kind of happens as I go along."

There is some recorded instruments on this record though, right – vocals, guitars, synths...?

"There is, but even when I record something in, I won't get the track up and try and perform a perfect take, sometimes I won't even have the track on. I'll just record a bunch of sounds from a keyboard or a guitar and manipulate that to fit with the track I've got. It's going back to that thing of it wanting to become an edited, sequence-type sound rather than human performance."

"If I sat down with a guitar and started soloing over things, I'd never get anything done that hadn't been done before – the guitar is such an explored

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instrument. But if I record small parts and try and manipulate them to fit with the track, but pitching it, stretching it, slowing it down, speeding it up, I forget that it's guitar almost, it just becomes sound.

"I'll pick up a guitar or a keyboard because I want the sonic quality of that instrument, not because I've had a great idea for a line that comes in at a certain point."

What about DJing then?

"When I was at Plastic People, I'd be the only DJ there and I'd play 5-6 hours, very, very eclectic. The great thing about Plastic People is that it's so open-minded. You can play three Techno tracks followed by a Jazz record and people get excited. I also did a residency at The End, first with Timo Maas and then with James Holden. Those were much more Techno-orientated. Part of the fun of the whole experience is trying to get that great communication going between the audience and me where they're getting excited about what I'm going to play next and I'm getting excited about trying to keep their attention.

"With Techno and House records, that relationship is amazing – you've really got the space to build something up over the period of an hour and drop something that totally changes everything and makes people freak out. I really got into trying to create long drawn-out sets that build atmosphere."

Four Tet on Working with Burial

FM: How did your collaboration with Burial come about?

KH: "Burial and I actually went to school together so we've been friends a long time. When his first record came out, he got back in touch with me and we talked about doing something together at some point. It took us a long time to get it done but we finally got it out last year. That was mixed here [Miloco's The Square, London] actually.

"We did everything in Pro Tools in the end, but he would work on his own stuff, rendering it down and giving it to me to put into Pro Tools. We'd sit there, each

with a computer, trying out ideas. He works entirely in [Sony] Sound Forge, with nothing else. We'd get some ideas or a loop going and he'd just be pressing play in Sound Forge to see what worked."

Did you take any inspiration away from that way of working?

"He was a very inspiring person to work with, the fact that he's put out those records and he's never used a quantiser, or he's never put anything on a grid. People flip out about the sound of the Burial records and it's because he's not using things that everybody relies on."



What are you DJing on?

"It depends on the venue. At Plastic People it was pretty much vinyl-only. They've got a really nice setup with great sound. If you're playing some dodgy tent at Glastonbury and you show up and there's mud all over the decks, then I'll just bring CDs. I'm not interested in Serato or Traktor really – I don't want a situation where I'm having to look at a laptop screen while I'm playing, so that I spend more time looking at the crowd. You see so many DJs who just aren't there at the club with you, who are just browsing a file manager for a few hours. With vinyl, all you can see is how long is left on the

record and it makes you have to deal with what's going on around you."

Do you think the club style is going to continue into your next records?

"My plan is never to plan, I'm just going to tour this record see how the music evolves from there. It might be next year when I sit down to make new music and I might never wanna hear another bass drum in my life. I'm getting old and my taste is getting worse – Sting put out that lute album where he sings like Robin Hood. It's gotta be coming up soon where I make an incredibly bad taste decision, so maybe that's my next project." **FM**

WANT TO KNOW MORE?

For more info on Four Tet's discography, his upcoming live show dates and for the latest news on releases, visit his official website at: fourtet.net

ON THE DVD: Four Tet Studio Tricks

1

Sing

Four Tet breaks down *Sing* from his latest album and shows how he created the key elements, editing all the audio in Pro Tools.

2

Love Cry

Kieran shows you how he edits beats in Pro Tools, taking you through *Love Cry*. He also reveals the infamous Four Tet sound...

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Four Tet explains why he's such a fan of the Tenori-on and shows how the initial elements of *Sing* were created on it.

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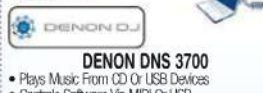
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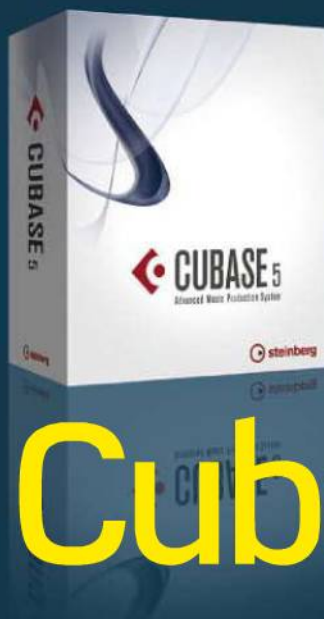
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FUTURE MUSIC 227

CUBASE ESSENTIALS



Using Beat Designer in Cubase 5

This month, it's all about getting creative with your beat making with the built-in plugs. **Bruce Aisher** has some Cubase update news and takes a look at the built-in Beat Designer, as an alternative to the standard Drum Editor

There is some interesting news on the Cubase front this month with Steinberg's announcement of the imminent arrival of Cubase 5.5.

Having yet to get my hands on it, all I can report is what has trickled out in recent weeks. There will apparently be some

performance enhancements including multi-core and plug-in efficiency gains, as well as improvements to the VST Bridge (for 64-bit system compatibility).

Automation will see some new modes, and video support will be dragged into the HD age. MediaBay will also see some new

THE EXPERT

Bruce Aisher,
producer,
engineer



Bruce has been using Cubase since its arrival on the Atari ST in 1989. He's grown up alongside his favourite piece of software, sharing the ups (and downs) of the professional music world. The two are now inseparable.

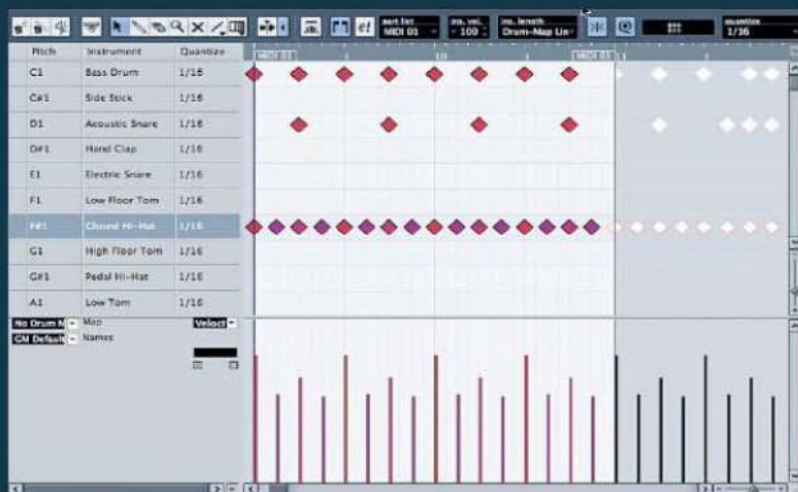
features and general updates, and there are expected to be new features in Channel Batch Export window. We'll keep you posted on this – expect a detailed look as soon as it is available.

And now for the real tips...

Programming drums in Cubase (...the old way)

1 It is possible to programme your beats in a number of ways in Cubase 5. If you are using loops then this is usually by importing them onto an Audio track and then using the main Project window or Audio Part Editor to slice and dice them if required. Even drums in the form of single audio hits are easily programmed and manipulated this way.

If you need more sonic flexibility in terms of tweaking the sound – or are creating sounds from scratch – then you will often need to get stuck in with some note-based MIDI programming. Although this is perfectly possible using the Key Editor, Cubase includes the Drum Editor for more specialised beat creation using a grid and



Cubase's Drum Editor – an oldie but a goodie

Grand Designer

Beat Designer is a pattern based programming tool



Introducing Beat Designer

2 What the standard Drum Editor lacks, despite the grid, is full pattern-based programming and editing in the manner of most standalone drum machines. Steinberg addressed this shortfall by introducing Beat Designer with C5. Unlike the Drum Editor, this functions

as a MIDI Insert Effect and addresses only the MIDI device or VST Instrument assigned to the track into which it has been inserted.

As a pattern-based programming tool, it proceeds through a fixed number of steps (set at the top of the plug-in window), before returning to the start and repeating – and of course this will be at the Project tempo.

Step resolution determines the length of each step.

There are 12 pattern slots available in each of the four sub-banks, which are accessed using the pattern display at the bottom of the Beat Designer window. Each drum note is assigned a lane which has its own grid that can be programmed by clicking on a step to add a beat (and clicking on it

again to remove it). Velocity of the step is determined by where on the lane you click when adding the notes (the higher up you click, the greater the velocities) – these can be edited by dragging and dropping, if further tweaking is required.



> Adding beats to Beat Designer.

simple 'blobs' to represent a beat. The advantage here is that you can configure different grid resolutions (and MIDI channels) for each note, and adjust velocities (and the mute status) for single pitches (i.e. one sound), one at a time.

The Drum Editor also allows you to create your own drum maps with names for each sound, and therefore act as a programming hub for multiple devices.



> Programming beats using the Cubase Drum Editor.

Lane settings, patterns and editing

3 Additional lanes, representing different beats, can be added by navigating to the far right of the bottom lane and clicking on the '+' sign. As more lanes are added, those already displayed will shrink in height. Up to eight can be displayed at one time.

If more are added then they can be reached by using the scroll bar to the right of the Beat Designer window. Lanes can be removed by clicking on the '-' to the right of each lane, and re-ordered by dragging on an

empty space in the name box. Names connected to given pitches are derived from the default GM drum map.

Using Shift and clicking on a lane and dragging to the left or right allows you to move all drums steps. Holding Alt/Option and clicking in the section to the left of the lane you want to copy and dragging it to another lane will copy its entire contents. Inverting a lane (setting steps that were 'on' to 'off') is achieved by dragging the mouse over a lane with Alt/Option held. The Edit menu at the top left of the window provides a range of pattern manipulation functions.



Adding Flams

4 Flams are single or multiple beats that occur in the very short time frame before a drum hit (much like the effect that you get when drumming your fingers on a table).

They are a very real part of a drummers armoury, but not accommodated easily into the regular Cubase Drum Editor

workflow. Once again, Beat Designer comes to the rescue with its Flam parameter, that can triggered at each step in a number of interesting ways.

Flams are added by clicking on the individual drum steps in each lane. By hovering over a step, you will notice how three empty squares appear. Click on these once to add a single flam, and again to add a second or third. The squares will turn black to indicate that a flam has

been added. At the bottom left of the window you will see series of horizontal and vertical sliders.

Here we can adjust the offset and velocity of each different type of flam – one, two or three hit – each represented by one, two or three dots. Simple.



> Introducing controlled flams to your beat programming.



> Adding, removing and editing drum lanes.

Swing and offsetting lanes

5 The key to programming a great drum track, besides the basic pattern and choice of sounds is often down to how additional groove is introduced through the use of swing. Swing, in the case of Beat Designer, is achieved by subtly offsetting every other step (or every third step, if triplet resolutions are being used), and this can be adjusted on a per lane basis.

There are two global swing sliders (labelled 'I' and 'II'), found at the bottom right of the window. When set in the centre they are inactive. Pushed to the right and swung notes will be early, and to the left they will be late. By default, each lane uses swing setting 'I', but this can be switched to



You can save a Beat Designer preset for recall on other projects

setting 'II' by clicking on the relevant numeral button to the right of the step display for each lane.

To the right of these is an offset slider that allows you to shift all the beats on the given lane (earlier or later) to change the feel further. Delaying certain groove elements makes for a more 'laid-back' feel.



> Using swing and lane offsets to improve the groove.

Triggering patterns

6 Although you can select different patterns manually from the pattern display at the bottom of the Beat Designer window, it is also possible to trigger different patterns using MIDI Note On events (played live or previously recorded onto the selected MIDI track). Different pitches (starting at C1 and ending at B4) will trigger one of the 48 different patterns.

To utilise this feature, enable Jump mode by clicking on 'Jump' at the top right of the Beat Designer window. To the right of this you can determine how quickly the Note message will trigger each pattern. If 'Now' is selected, as soon as a Note On is received the pattern will change, regardless of where in the Project you are. If this is not enabled, then the pattern will not change until the next bar of the song is reached. This ensures that playback remains in sync.

A lot of fun can be had entering MIDI notes onto the track in question, and triggering patterns in odd places, if you want to experiment with unusual beat placement and different rhythms.



> Triggering patterns using MIDI notes.

Converting into MIDI parts

7 Although Beat Designer offers some great functionality, and is self contained, there will be times, that you will want to import your patterns into the main Project window. Luckily this is as simple as dragging and dropping them from the pattern display. Dragging a single pattern will create a MIDI part on a new MIDI track. If you drag a whole sub-bank (numbered 1-4) then a series of MIDI parts will be created one after the other on new MIDI track.

The Edit menu at the top-right of the window offers further options for Inserting patterns into the main Project, including 'at Cursor' and 'at Left Locator'. If flams or offsets are used, then created MIDI parts may be an unusual length to reflect this.

This is perhaps one of the best features of Beat Designer, as it allows you to get the most of its simplifies step-time 'engine', but with flexibility of allowing tweaks at the Project level.



> Converting Beat Designer patterns into MIDI parts in the main Project window.

Managing presets

8 You can save and recall all your patterns (48 patterns with 12 in each sub-bank) as a complete pattern bank. This allows you to

re-use patterns in any other Cubase Project using the preset management button in Beat Designer or via MediaBay and the 'Apply Track preset' menu in the Track list.

It is worth noting that pattern banks contain only Beat Manager information (Lane data, including Solo, Mute, Pitch and Swing info as well as global settings), and not details of how the MIDI notes are used once they leave the Insert effect. So if you wish to recreate your beats as played, you will need to also save the relevant information in your MIDI module or VSTi.

To save a Beat Designer pattern bank, click on the Preset Management button to the right of the preset name (the diamond icon), and select 'Save Preset'. After entering a name for the new preset and clicking OK, your preset will be available for recall on the Preset browser, in MediaBay and on the Apply Track preset pop-up menu in the Track list.



ON THE DVD

> Managing Beat Designer presets.

Quantiser

9 Quantiser is a useful MIDI Insert effect that is great way to play around with the timing of your recorded (and even real-time live) MIDI parts. These functions are most often accessed via the main Quantise sections in the MIDI menu, but here they don't really allow you to try various settings in real-time. Quantiser on the other hand, allows for a degree of interactive experimentation.

First you will need to select the effect in the MIDI Inserts section of the chosen MIDI track's Inspector (to the left of the main Project window). Quantiser has a simple range of parameters. 'Quantise Note' sets the basic correction grid to which notes will be corrected (16th, 8th, 16T for triplet etc). 'Swing' adds a slight delay offset to every other grid position, moving progressively to a more shuffle feel.

'Strength' determines how much the notes are pulled to the set grid, specified by the 'Quantise Note' setting, and 'Delay' adds a positive or negative timing offset (in millisecond increments).

The 'Realtime Quantise' button is used for so-called 'live mode' processing in order to correct notes as they are played in to Cubase. This is really useful for jamming ideas in and playing with loops.



ON THE DVD

> Using the Quantiser MIDI effect for real-time note quantisation.

NEXT ISSUE

Make sure you pick up *FM* next month for more Cubase tips. *FM228* on sale 18th May

Auto LFO

10

Auto LFO is a MIDI plug-in that usually works best

when configured as a MIDI Insert effect. It works in much the same way as an LFO (Low Frequency Oscillator) available on most synths does, but instead of controlling the internal parameters on a synth, directly it transmits MIDI CC (Continuous Controller) data.

Of course, it is up to you to determine what the CCs should be used for – filter cutoff and panning are two common examples.

Like most LFOs, you can select the 'Waveform' (Sine, Triangle, Sawtooth, Square and Random waves are available for the transmitted controller curves). 'Wavelength' determines the speed of the Auto LFO (specified by the length of the curve cycle).

'Controller Type' selects the CC number of the controller to be

transmitted (Modulation, Expression etc), while 'Density' alters the smoothness of the curve (at what interval the MIDI CC values are transmitted from the plug).

'Value Range', available via two sliders at the bottom of the plug-in window (see below), limits the maximum and minimum values sent out by the LFO.



ON THE DVD

> Creating a MIDI filter sweep using the Auto LFO MIDI effect.



The Science of Psychoacoustics

Can psychological factors really affect the way we interpret sounds? **Greg Scarth** delves into the murky world of psychoacoustics

Although you may not be aware of it, the way we perceive sounds is strongly affected by a series of psychological effects

known as psychoacoustics. Our hearing is not quite so clear-cut as you might imagine, and a number of psychoacoustic phenomena can dramatically affect the way we respond to the sounds we hear.

This month, we'll take a brief look at three very important characteristics of audio – frequency, volume and timing – in order to show some of the ways the human ear responds to sound and how our perception can be affected by subtle variables.

Equal loudness

The way we perceive the loudness of sounds is critical to a number of processes in the studio, and all things are not equal. Our

ear's frequency response is not linear, meaning that we perceive some sounds to be louder than others despite the fact that they may measure at the same sound pressure level. The audible frequency range is usually approximated to 20Hz – 20kHz (although this varies on an individual basis), but the ear is most sensitive to sounds around 2-4kHz. See the diagram below of an equal loudness curve for an example of how it takes significant increases in sound pressure level to make low and high frequencies appear as loud as these mid-range frequencies.

Note also that 2-4kHz is the typical frequency range of the human speaking voice and the sound of babies crying – the ear is naturally biased towards the most important sounds that we hear. One important point to be made here is that your

perception of the loudness of different frequencies changes significantly at different levels. At an overall lower listening volume, low and high frequencies appear to be much quieter relative to the midrange. Anyone with a slightly older hi-fi will be familiar with the now unfashionable 'loudness' button, which boosted the low and high frequencies at lower volumes in an attempt to compensate for this discrepancy.

This phenomenon helps to explain why your mixes can sound significantly different when you turn the volume up and down. One of the most common mistakes made when mixing is to monitor at a high level and push all the midrange elements up, which leaves them sounding unbalanced at lower levels. The classic solution is to mix at a low volume, especially when checking the relative levels of vocals and other crucial midrange elements.

However, there's a strong argument in favour of checking final mix EQ at a higher level if you're making music that will primarily be listened to at high volumes in clubs. Either way, picking an approach and sticking to it is probably the best bet for consistent mixes.

Out of range

It's worth considering the effect of frequencies outside the audible frequency range here too. We may not be able to hear subsonic or hypersonic frequencies, but they can't be disregarded. In particular, the weight imparted by subsonic frequencies plays a major part in how we feel music.

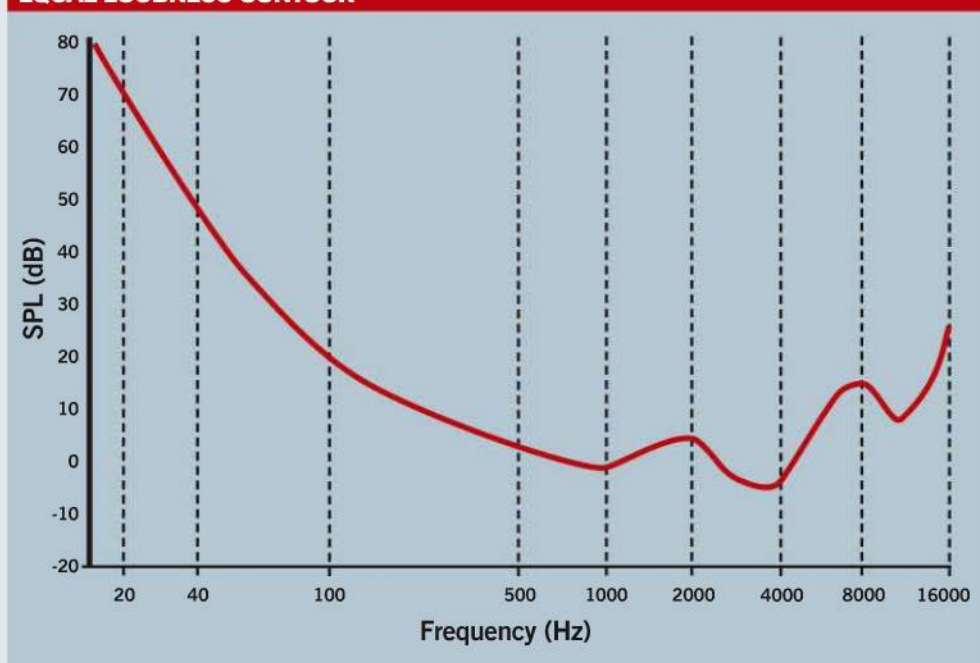
To get an idea of how this works, try taking a heavy track with lots of sub-bass that you know well. Listen to it with the whole track running through a steep high-pass filter at around 80Hz, then gradually reduce the filter frequency. You'll notice as you reduce the frequency that there comes a point where all the fundamental frequencies are present, but the track lacks weight and doesn't feel like it physically hits you as much as before.

Although most of us can't hear sound above 20kHz (and many of us struggle from as low as 14-16kHz), studies have suggested that humans perceive music differently when hypersonic frequencies are present. This has also been suggested as one of the weaknesses of the Red Book audio CD format (which can only reproduce frequencies up to the Nyquist frequency of 22.05 kHz). Just because they're not obviously present, it's important not to forget these inaudible frequencies.

Louder is better?

Scientific research has shown that listeners consistently perceive louder versions of a recording to sound subjectively better than

EQUAL LOUDNESS CONTOUR



quieter versions of exactly the same waveform. The implications of this research to musicians are significant.

Obviously, it suggests that if we listen to our mixes at a higher volume we'll perceive them to be better. In a music production and mixing context, the temptation to push the volume up in order to make the track sound better is powerful, but the effects are highly undesirable, massively affecting our subjective response to sounds. Not only are louder sounds subjectively better, but our sense of pitch is also seriously affected by volume. The effects are more extreme at the limits of our hearing range, making low notes sound lower when played louder and high notes sound higher. This can occasionally be problematic for instrument tuning and vocal pitching. As a result, making critical judgements at higher volumes is best avoided.

However, the most significant consequence for most of us will come before the final mixing process, and relates more closely to production and sound design. When synthesising sounds, choosing samples and applying effects processors to a track, we often make comparisons between two versions of a track at different levels, and this is where the subjective 'louder is better' effect can seriously warp our judgement. A number of effects – from compressors with incorrectly adjusted make-up gain to overdrive plug-ins – impart a volume change to your signal, and it's all too easy to trick yourself into believing an effect is improving the sound simply because it's boosting the volume. When adding effects, careful balancing of gain settings and use of the bypass button are

The subjective 'louder is better' effect can seriously warp our judgement

highly recommended to avoid tricking your ears into thinking a louder version is better.

It's all about timing

The timing of signals massively affects our perception of their position in a 3D space. Since sound waves take time to travel from their source to our ears, pushing back the timing of one element (relative to others) gives the illusion that its source is moving further away from us. It's quite easy to experiment with timing delays in order to

Auditory Masking and Missing Fundamentals

Two more interesting psychoacoustic principles are useful to understand in the studio. The first, known as auditory masking, has already been mentioned in *Knowledge Base* way back when we looked at how the MP3 encoding format works.

Masking refers to the way in which one sound can affect our perception of another. In pronounced cases, one sound can be completely hidden by the other when the two are played simultaneously (or near simultaneously).

The MP3 format takes advantage of this by discarding masked elements of a recording in order to reduce bandwidth and file size. In a studio

context, some degree of masking can occur whenever we have two instruments playing in similar parts of the frequency range.

For this reason, it's wise to give each instrument its own space in the frequency range, either through careful EQing or by addressing the problem at its source and having each instrument play notes in different ranges. This is often as simple as shifting a troublesome part up or down an octave.

A contrasting phenomenon is also common, with the ears and brain filling in the gaps where components of a sound are expected but not present. Take for example a sawtooth

wave, which contains all the integer harmonics of the fundamental frequency. Even when the fundamental frequency is not present, our ears still perceive the pitch of the note to be at that fundamental, filling in the gaps where they believe the missing fundamental (or phantom fundamental) should be.

This is useful for giving the impression of lower bass notes without overlapping with your kick drum and using up vital mix headroom. Harmonically rich bass sounds such as sawtooth and square waves allow us to roll off the bass frequencies and let our ears do the rest of the work for us.

understand this phenomenon. Since sound travels quickly, it only takes very very small timing differences to hear the effect.

The speed at which sound waves travel through air depends on the barometric pressure, temperature and humidity of the environment, but for our purposes here it's easily approximated to one foot per millisecond. Try adding a delay plug-in to one element of a mix, set to 100% wet signal and gradually increasing the delay time in the order of milliseconds. A 10ms delay should be enough to hear the sound get pushed back behind other elements of your mix. Of course, there's more to 3D space than timing, most notably left-right sound location. We covered stereo sound – a psychoacoustic phenomenon in itself, tricking the ears into believing they're

hearing a true left-right sound image, in previous *Knowledge Bases*.

Furthermore, the frequencies of sounds are affected by their environment. The sound of a dog barking half a mile away is not just a delayed version of the same waveform we'd hear if we were standing next to the dog. For one, it's quieter, but it also has a different tonal characteristic as a result of the diffusion of the sound over space.

Disregarding echoes for a moment, the sound appears to lose some of its high frequencies as it travels through the environment to us. Since high frequencies are diffused, gently rolling off the top end of the delayed track with a low-pass filter can also help to recreate the effect of a sound coming from further away. Echoes are also a crucial factor in the way our ears perceive

the sounds we hear. Most natural environments will impart echoes and reverberations on a sound, and our ears are surprisingly adept at decoding the acoustic environment from sounds we hear. On an obvious level, a sound recorded in a concert hall will have a significantly different sonic signature to one recorded in a small club. The decay time of the reverb and the time delay between the original sound and early reflections are two of the most important characteristics of reverberations, and our hearing uses this information to calculate the size and shape of the 3D space of sounds we hear.

So how do I do it?

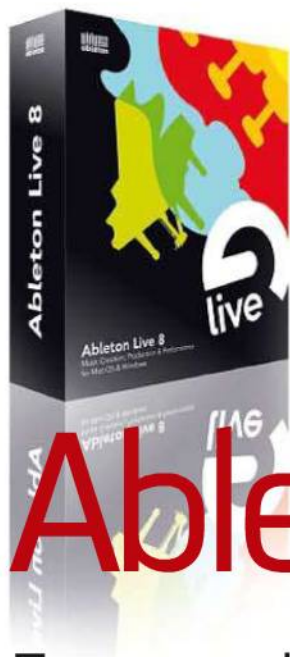
Even though we've only covered a fraction of the many psychoacoustic phenomena in, you may well be wondering how on earth you can account for all of them as you work. With so many interacting variables, surely it's impossible? The good news is that you're probably already compensating.

For example, if you have ears (and you probably do!) you're already 'using' equal loudness contours as you make music. Likewise, most producers will almost instinctively compensate for timing discrepancies, subtle shifts in frequency balance and 3D imaging as they work. The biggest practical lesson we can take from this is that consistency is essential. If you wondered why your mix sounded great at full volume but the vocals popped out when you turned it down, or if you wondered why your track lacked 3D depth, psychoacoustics can help you explain. **FM**

KNOWLEDGE BASE NEXT ISSUE

Stay tuned to *Future Music* for more *Knowledge Base*. Next month, we investigate different types of metering. **FM228** on sale **15th June**

ABLETON LIVE ESSENTIALS



Simple Sampling in Ableton Live 8

Every version of Ableton Live includes the Simpler sampler – an instrument in it's own right, turning any noise you can think of into something playable. **Martin Delaney** hums into his MacBook mic and hopes for the best...

Live users – before you spend any more money on software instruments or plug-ins, why don't you spend some time looking at the two free sampling instruments that come with every version of Live? It might just save you a few quid.

You've got your Impulse drum sample player, and then there's your Simpler, which is a 'basic' instrument for all other sample playback duties. Yeah, I know – an audio

clip is a sample too, but we'll conveniently ignore that for now, because we're all about the instruments today.

Actually – scratch that, because we've done quite a lot with Impulse in our most recent tutorials, today we're mostly talking about Simpler. We're also about keeping it simple for now, so we won't be doing anything with Live's more complicated add-on instrument, Sampler – though we will talk about it along the way.



The Impulse drum sample player is the other free sample-based instrument that's included with all versions of Live

THE EXPERT

Martin Delaney
performer,
educator,
producer



Martin, aka mindlobster, has produced Live training material for MacProVideo and PC Publishing, and has personally taught Live to musicians, DJs, kids, and prisoners. He also designed the Kenton Killamix Mini MIDI controller and is one of the UK's first certified Ableton Live trainers.

Simpler is one of Live's most important devices, even if you never use it as a standalone sampling tool. Next time you load a Drum Rack from Live's library, or next time you use the 'Slice to New MIDI Track' command, look at those chains – Simpler is used to host those individual drum hits, and those individual slices.

Not much would get done without it. Drag an audio sample from Live's Browser or a clip slot into a rack's chain area, and an instance of Simpler will automatically be created to hold the sample.

Start simpler

Getting started with Simpler is straightforward. Double-click on Simpler in the Instrument Device Browser, and it'll load into a Live MIDI Track. Then choose your source audio sample – it could be in the Browser, or in a clip in Session or Arrangement View, or even still on your computer desktop – wherever it is, drag it straight onto Simpler's display and you'll see the waveform. Connect a MIDI keyboard, or hit shift-cmd-K to access



Live's 'virtual' MIDI keyboard, which uses the QWERTY keyboard, arm the track to record, and start playing. You should hear the sample playing back immediately, across every key on the keyboard. It's really fast to get a sample in, and sound out. You can stop there if you want to, sometimes that's all you're after, but not often – which is why Simplifier has so many other little knobs and boxes to play with.

Check out the walkthroughs on the following page to get some ideas about what you can do with those knobs and boxes, but there's a couple more Simplifier factoids and nagging reminders that wouldn't fit in the walkthroughs that are worth keeping in mind.

For example, when you drag an audio clip into Simplifier, it only uses the area defined by the clip's start/end markers or loop brace, so experiment with start and end points to get the attack you are after. Also, ctrl/right-clicking on Simplifier's waveform displays a crop sample option – this is useful if you like to drag an entire song into Simplifier (and why not?), then slice out the part you want.

Finally, C3 plays back your sample at its original pitch. If you don't like that, use the Transp (transpose) and Detune controls. In the walkthroughs, I talk about using Operator's .ams files as a sound source, and of course you can use any sound, but what I really like doing is using location recordings I've made with the Voice Memos app on my iPhone, and a Blue Mikey add-on microphone.

I've got train engine noises, speech, air conditioning units and jet washes among my favourite Simplifier patches. You can either capture a sound you like, and keep it raw because you like it in its original form, or you can view it as just another audio source that you can mangle until it hurts. It's a great exercise in sample-based synthesis. **FM**

LIVE ESSENTIALS NEXT ISSUE

Make sure you pick up *Future Music* next month for all you need to know about syncing Live on two computers. **FM228 on sale 15th June**

Sampler is the helpfully-named Ableton multi-sampler. It's very powerful, but don't underestimate what lil' ol' Simplifier can do first

Simpler with Operator

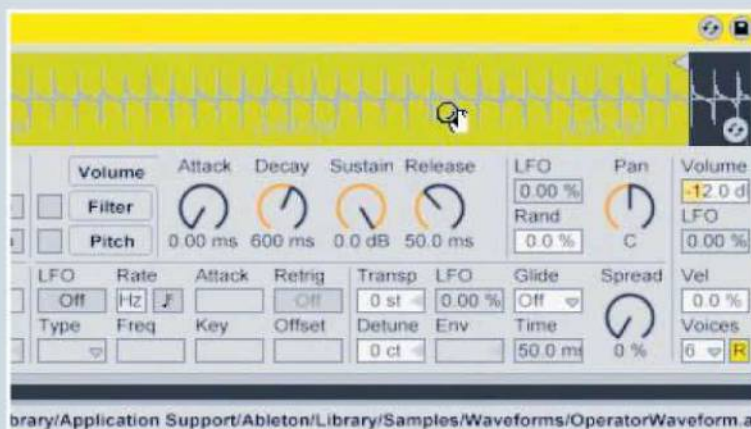
Ableton's Operator synth is a great sound source for Simplifier. Let's get creative...



1 Here's a fun one for those of you that use Live's Operator synth in Live 8. Load Operator's default setting, then create a MIDI clip or use a keyboard to trigger some notes. Select Oscillator A, then click the Oscillator button in the Envelope Display.



2 Mouse over the grid that appears – your cursor's become a pencil. While Operator's still playing, draw a curve in the grid, listening to what it does. When you get a sound you like, choose 'Export AMS' from the Context Menu and it'll save in the Library.



3 Load Simplifier now, and drag that .ams file from the Library straight into Simplifier's Drop Sampler Here area. Now you can begin creating a new Simplifier patch. There's something I like about drawing my own sound, then tweaking the life out of it!

Fun with a Hum

Simpler is so powerful that it's possible to make something much more interesting from a really basic noise. Like this...



1 This month's tutorial Live set includes a raw sample of your favourite writer humming a single note(ish) – let's see how far we can take it – if you'd rather use your own hum, feel free! Start by dragging Simpler from the Device Browser into the Session View Drop Area, to create a new MIDI track.



2 Drag the 'hum' clip from the Session View audio track into Simpler's 'Drop Sample Here' area. The sample's waveform appears immediately, and you can trigger it from your keyboard. It might sound a little bit quiet at first, because Simpler's volume control defaults to -12dB. Change this to 0dB.



3 Your sample's root note will be C3 by default – that's the note which will play it at its original pitch. Another default – Simpler plays one-shots – the sample stops when it gets to the end! Activate the Loop switch to change this. Activate Snap to reduce the amount of clicking as the loop cycles round.



4 Now, change the Loop to 12%, Length to 85%, and Fade to 100% – do it while notes are playing so you can hear what's going on. The idea at this point is to get a smooth-ish loop, so it doesn't bump too much on the way round. Set the Volume Envelope Release to 3s.



5 Activate the Glide switch for a little portamento between notes, and set Spread to 100% to fatten the sound. Everything we've done so far has kept the basic sound of the sample intact, so let's try something else now. Turn the Filter on and select HP12. Set Freq to 300Hz, and Res to 2.



6 That's the end of the first stage. Check out the *Taking It Further* walkthrough on these pages for some LFO fun, and don't forget to save your sound design masterpiece as a preset using the Save Preset button once you've finished your creation, so you can load it into other Live sets.

Taking it Further

Once you've got a basic functioning patch you can really get to work



1 Turn the LFO on, set the Rate mode to beats, and set it to 1/8th notes. Choose sawtooth down as the waveform. Set the filter LFO value to 10.0. Can you hear it? We're getting a nice little pulse going, don't you think?



2 Experiment with applying the LFO to Simpler's volume, for yet more pulsing. This sounds pretty cool, but I'm going to put it back to 0. If you look around Simpler's interface, you'll see other LFOable controls – like Pan and Transposition.



3 If you're using a 'proper' keyboard, apply your keyboard velocity to Simpler's volume instead of the LFO – this will be more responsive to your performance. Try a value of 25%. Last thing: if you want a monophonic instrument vibe, change the number of voices to one.



An Ableton Live project (Live 8 required – if you haven't got it, you can download the demo from ableton.com – it'll run alongside any other version you have) containing material used in the tutorial, including some audio samples to mess around with, and a QuickTime movie showing the techniques in action.

Sampler Session

If you ctrl/right-click on Simpler's Title Bar (the device name at the top, in other words) you'll see this option: Simpler -> Sampler. This will open the current Simpler preset into Sampler – Live's complex multi-sampling instrument. Obviously this only works if you've bought yourself either the Live 8 Suite, which includes all of the available Live instruments, or just Sampler itself as a single add-on.

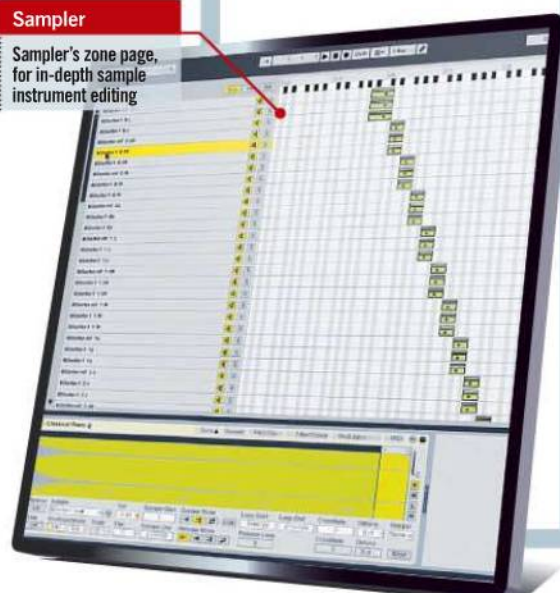
The multi-sampling is the main thing that differentiates Sampler from Simpler. Traditionally this is where, instead of pitching one sample across a MIDI keyboard, many samples are used and spread across the range of pitches and velocities to create more realistic-sounding keyboard performances. Simpler can play multi-sample presets created in Sampler, but it can't create or edit them. Naturally, these features also make it possible to create more creative experimental sounds too.

Smooth Operator

Sampler can also import other sample formats, so if you have a 'legacy' of Akai format CD-Rs, or patches that were created in other software like Logic and Kontakt, you can open them from within Live and save them as Sampler or even Simpler presets. Sampler's great for experimentation – I'd have to say it's more usable for that than for creating 'realistic' sounds (you'd be better off using something like Logic's EXS24), which is pretty much true of Live overall. As usual with Live instruments, if you haven't purchased them yet but you're getting curious, go into Live's Preferences, and under the User Account tab, you can choose to run Live in demo mode, which will enable all of the Suite instruments (with the usual demo limitations). When you want to exit demo mode, just go back to Preferences and reverse it.

Sampler

Sampler's zone page, for in-depth sample instrument editing



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Reviews

The month's studio essentials
on the *FM* test bench...



Highlights this issue...



Akai APC20
82 Half the size of an APC, but half the price too. This amazing new Live controller could be your perfect solution.



Korg PS60
84 Lightweight, practical, flexible and packed with the latest sounds. Korg say don't go gigging without one.



Roland Gaia
92 Take away the screen and replace with a hoard of knobs and sliders. It's synthesis just the way we like it.



Sontronics Saturn
102 Is this stunning-looking mic the ultimate all-rounder?



NI Maschine 1.5
110 The latest upgrade to Maschine truly takes the beatbox to a whole new level.

Korg microStation | £528

The smallest synthesizer Korg ever design with their 'workstation' tag is here. **Jono Buchanan** beams up to the microStation...



WHAT IS IT?

A performance-led workstation from Korg – programming, sequencing and creating tracks in one portable package

CONTACT

Who: Korg UK
Tel: +44 (0)1908 857 100
Web: korg.com

HIGHLIGHTS

- 1 Fun with a capital F but capable of serious results
- 2 Intuitive and immediate yet 'deep' when required
- 3 Equally at home onstage or in the studio



Those old enough to remember the arrival of Korg's legendary M1 will know that the 'Workstation' tag it gave birth

to is an accolade Korg only apply to keyboards which combine synthesis and sequencing – in other words, those instruments they consider a one-stop shop for track creation.

Fast forward to the here and now and Korg have developed a second series of instruments, the 'micro' range, including the microKorg XL synth/vocoder and the microSampler, both of which combine serious sound-making potential with ease of use and a fun factor. Combine the two concepts and you end up with something potentially exciting – an instrument capable of producing tracks and editing sounds 'internally', while

also offering an immediacy and intuitive approach without bogging the user down in endless menus. Enter the microStation – Korg's latest addition to both its Workstation and micro ranges, which promises to do all of the above and more besides. Too good to be true?

Compact looks

Appearance-wise, the microStation has a foot more firmly planted in the micro camp than it does in that of its Workstation big brothers. It's a slimline, lightweight instrument, featuring 61 mini-keys and a remarkably shallow width – about the same as the length of a DVD case. The top surface features a central two-line LCD display in the middle, with a sound 'ladder' to the left to display which category of sound you're

currently playing, with the internal sequencer transport buttons below. To the right, a series of small grey buttons and corresponding LEDs keep you in touch with selected timbres, while to the left, a matrix of three rows of four parameters can be manipulated in real-time by four prominent rotary dials, with a selection button to jump from one row to the next to their left.

A pitch-bend/modulation joystick lies in the top-left-hand corner while, round the back, you'll find stereo outputs, MIDI I/O, a USB connector for instant plug-and-play MIDI transmission to your DAW and an SC card slot for data load/save. All in all, the compact nature of the instrument is both a success and a frustration – there's a lot packed into a slender space to complement the other micro



products but I'm yet to find a keyboard player who likes mini keys. If there had to be a compromise here, I'd have preferred an octave fewer notes in favour of full-size keys but, as gripes go, it's by no means a deal-breaker.

What's that sound?

As previously mentioned, sounds are organised into nine categories, from synths to basses to leads to drums and so on. These all employ Korg's EDS-i sound engine and there are 480 presets in total awaiting you when you switch on, with room for 512 sounds in total. You can scroll through the presets or get your hands dirtier with editing direct through the LCD, which you can read more about in the Sound Editing Menus box. Those of you familiar with Korg's architecture will know that sounds can be played in either single (Program) mode, or

Sound Editing Menus

The microStation's presets are well chosen, offering a good balance between Dance music sounds and more obviously 'workstation' sounds such as pianos acoustic and electric, guitars, basses and wind, brass and orchestral sounds.

Programs can be edited via the LCD screen, using the 'compass point' navigation buttons to its bottom right. Having

selected a sound, a single click right takes you into Program Edit mode, with the up/down keys then providing a ladder between edit parameters for a sound's synth components, such as the Filter or Amp EG modules, to name but two.

When you've found the section you want to edit, a further click 'right' takes you into that area, with the editable parameters in

each section again selectable up and down. If you're new to synthesis, this might prove a bit fiddly but having played with a lot of menu-driven synths, I found it reasonably intuitive, especially as arrowing left quickly gets you back to where you started. That said, a full software editor will be available from Korg shortly which should make life easier still.

riff (user-selectable from a huge list of alternatives) which immediately gets it playing a sequence or phrase that can then be manipulated, which is a great place to start and often leads to

parameters. One word of warning is that these encoders can 'jump' suddenly if you need to use the same physical dial to control two parameters. For instance, if you use the one on the

left to control cutoff and move this towards a low setting, if you then arrow down to use the same dial to control the amount of effects send and turn this

right up, when you return to cutoff, the sound will open to super-bright the moment you touch this dial again, as its physical position is now at maximum. I couldn't find a way to switch the microStation to relative mode, so hopefully this might be

combined (Combi) modes, with the latter letting you split sounds across the keyboard or create stacks for extra power. To aid the process of sound selection and to introduce you to the capabilities of the real-time controls, each sound features its own Audition

interesting composition ideas too. Sounds are most 'musically' manipulated in real-time via the dials to the left hand side, with the top row dedicated to cutoff, resonance, EG amount and EG release, while the middle row features four user-definable

Each sound features an Audition riff which immediately plays a sequence that can be edited

SPECS

Keyboard: 61 mini-key velocity sensitive keyboard

Sounds

Programs: 512 Programs / 480 Preloaded

Maximum Polyphony: 120 Voices max, single mode, 60 voices max, double mode

Filters: Four types of filter routing (single, serial, parallel, 24dB). Two multi-mode filters per voice (low-pass, high-pass, band-pass, band-reject)

Modulation: For each voice, two envelope generators (Filter & Amp), two LFOs, two key tracking generators (Filter & Amp)

Effects: 5 Insert Effects: In-line processing; stereo in - stereo out, 2 Master Effects: Two effects sends; stereo in - stereo out, 1 Total Effect

Sequencer

Tracks: 16 MIDI tracks & 1 master track

Songs: 128 songs

Resolution: 480ppq (parts per quarter-note)

Tempo: 40 - 300bpm (1/100bpm resolution)

Memory: Up to 210,000 MIDI events

Template songs: 16

preset/16 user template

Audio Outputs: Stereo or L/

Mono, R: 6.3 mm monaural

phone jack (unbalanced),

Headphone output: 3.5 mm

stereo mini-phone jack

Control Inputs: Damper/

Pedal/SW jack x1, MIDI: In,

Out, USB, MIDI interface

Dimensions:

778 x 210 x 82mm

Weight:

2.6Kg



Tracks & Songs

Use the 16 LEDs to layer your songs and sequences

LCD Screen

Two lines for editing will always be fiddly but it's usable.

Sequencer

Use the 16 buttons to map your sounds to the built-in sequencer

ALTERNATIVES



Korg M50

from £870

Featuring a proper keyboard, a better LCD and functions including Karma phrase sequencing, this offers an even fuller workstation experience.

korg.com



Roland SH-01 GAIA

£490

This new SH model from Roland offers sounds, arpeggiation and effects aplenty but lacks the internal sequencer. More on page 92.

roland.co.uk

something for Korg to address in a future firmware update.

Arpeggiate your life

Next to the Audition button you'll find the in-built Arpeggiator. There are 640 arpeggiation patterns built-in, a total from which you can select a preset or create your own. The presets are organised into 'instrument' type patterns, though there's nothing to stop you applying a 'bass' pattern to piano part or vice versa. The bottom row of real-time controllers is dedicated to arpeggiation functions, with knobs to control Arp Gate time (how long each note lasts), Arp Velocity, which varies the dynamic range of a pattern, Arp Swing and finally Arp Tempo.

The news gets better though, as microStation actually features dual arpeggiators, meaning that two completely independent arpeggiation

Get Effected

The microStation features 134 effects types, which are organised into five insert effects, two master effects and one 'total' effect. Not all effects can be loaded into each slot, so it's not possible to load eight reverbs to a single sound, for instance but a sensible 'channel strip' approach is employed instead, which shouldn't prove too frustrating.

Effects operate differently in each mode, with Program mode the least restricted – a single sound can route a sound through all five inserts, both master effects and the total effect if you so desire. Both Combi and Sequencer modes 'share' these effects instead and employ effects busses to decide which sounds get sent to which effects and

the amount of effect
applied to each.

Additionally, microStation features a Dynamic Modulation system, which allows you to assign specific effects parameters to real-time controls or MIDI controller numbers so that they can be affected using the controllers, the joystick or external devices. Pretty powerful stuff.

which cycles around an area of your choosing, while the 'Grid Seq' button activates a 'running light' style sequencer to allow you to create basslines, beats or sequence patterns

which is inspirational, creative and fun. What's so impressive is that there's something here for everyone – lots of people will consider this a 'Dance synth' with a sound set and sequencer/

arpeggiator functions to match, but it's equally capable of providing you with pianos, winds, brass and a more song-led approach to combining

It straddles the divide between a full-blown workstation and a worthy addition to Korg's micro range

patterns can play at once, so you can either layer a synth sequence with an accompanying pad, for example, or split the keyboard in Combi mode and assign a pattern to a bass and another to a lead. This also applies to the internals that can use both arpeggiators within its arrangements.

Sequence me up

The internal sequencer is capable of playing back up to 16 tracks of 'notes' and one master track containing tempo and time signature data, which can be collectively saved to one of 128 songs. What becomes clear straight away is that several types of arrangement can be created with the sequencer, whether you want to hit record and build up a multi-timbral 'song style' arrangement, or whether you're more interested in building short looped phrases which you can then expand out to a fully-fledged track or use to spin in to a DJ set, for example.

If the latter sounds more like you, you'll find a dedicated Loop button

on the fly, which can then comprise one of the instruments in your track. Switching from one instrument to another takes place via the function buttons on the right-hand side, while editing of parameters works as it does in the other edit modes – arrow down to choose parameters such as part level, pan and effects routing.

Also within the sequencer menu, you can specify automatic quantise so that if you want to build loops in the studio or onstage on the fly, timing correction can be applied in real-time as you layer parts. The tracks within each song can also access microStation's impressive effects section – check the *Get Effected* box for more information.

microSuccess

The microStation is a revelation and a total success for Korg, in my opinion. It manages to straddle the divide between a full-blown workstation and a worthy addition to Korg's micro range effortlessly and packs a feature set

these sounds to act as a backing tracks for Pop gigs. The biggest compromises are the mini-keyboard and the LCD menu-driven approach to sound editing but if you're serious about the latter, you'll undoubtedly turn to the software editor and if you're too vexed by the former, there are more grown-up Workstations, with keyboards to match, higher up Korg's product line. In the meantime, the microStation is here. And here to stay. I rather suspect. **FM**

FutureMusic **VERDICT**

BUILD

[illegible]

VALUE

■■■■■■■■■■

EASE OF USE

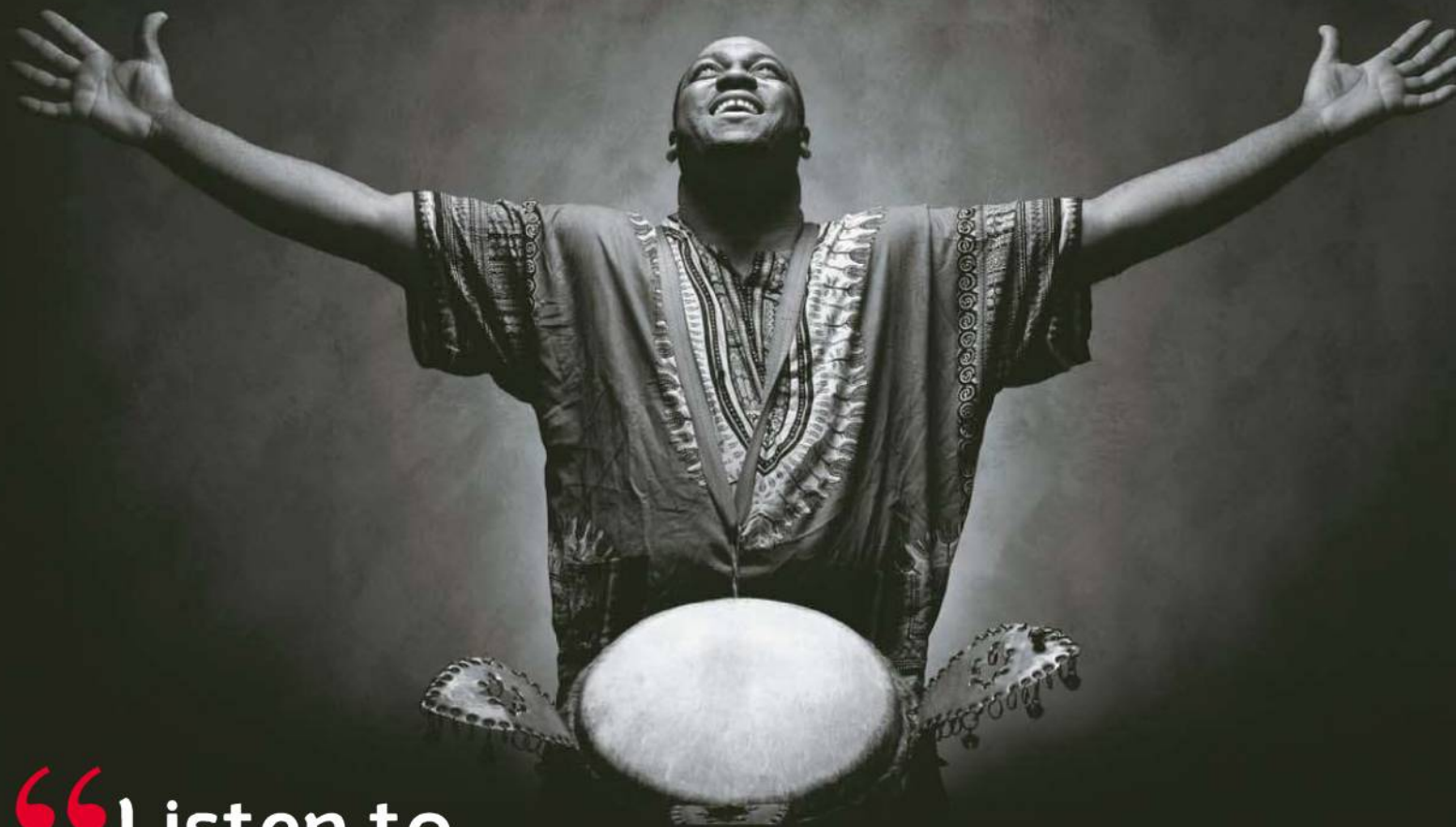
VERSATILITY

■■■■■■■■■

RESULTS

Bridges the divide between the workstation and micro ranges beautifully. Top marks.





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Akai APC20 | £170

Akai have taken a chainsaw to their successful APC40, and made the APC20. **Martin Delaney** wonders if it'll finally fit into his man-bag...



WHAT IS IT?

Hardware interface dedicated to controlling Ableton Live.

CONTACT

Who: Akai
Tel: +44 (0)1252 89600
Web: akaipro.com

HIGHLIGHTS

- 1 Effective control of Live's Session View
- 2 More portable (and bargain-priced) than the full-size APC40
- 3 New Notes mode

Akai's APC40, released last year, was the first 'official' Ableton Live controller, which gave it the right to carry the Ableton logo, as well as out-of-the box control that other MIDI gadgets could only dream of. The APC40 was well-designed, well-built, and easy to use – though there was a feeling that it was somewhat chunky for live gigs.

Novation (not coincidentally Ableton's UK distributors) retaliated with the Launchpad, a cheaper, smaller,

USB-bus powered unit which gave the bare bones of Live Session View control, with the benefit of compatibility with other music apps through the Automap software. Now, instead of coming out with something 'new', Akai have adapted the APC40, virtually cutting it in half and apparently shedding some of the functionality. Enter the APC20.

Grid iron

Retaining the metal base and ABS plastic upper casing of the APC40, the first things you notice about the APC20

are things that are missing – like all of the buttons and knobs on the right-hand side, and the two footswitch inputs. That said the nine faders, 40 clip buttons, scene select buttons, and track buttons for activation, solo/cue and record arm remain from the '40.

In an attempt to compensate for the 'lost' physical controls, the APC20 has a Shift button, which gives dual functions to many of the other buttons, and, critically, to the eight channel faders. But the thing that'll get existing APC40 users going is the new Note Mode button. Now the clip launch buttons can send notes directly to slots in Live Drum Racks (the Launchpad does this too). The Note Mode button also toggles the Track Selection buttons for transport functions, MIDI Overdub and grid navigation.

The box includes Ableton Live Akai Professional APC Edition so you can start to jam immediately and the '20 is physically as close to the '40 as possible. It's the same height and depth, and logically uses the same parts and materials. The smaller size means



this is a lot easier to find room for than the APC40, in a studio or a DJ booth.

Some folks will be disappointed that mains power is still required, considering that Novation have managed to get the Launchpad running off USB – I'm guessing that a move over to USB power would require a major overhaul, and that effort would be reflected in the price.

Plug in baby

Plug the APC20 into the mains, turn it on, hook up the USB cable, launch Live, select it as a control surface in Live's MIDI Preferences, and the familiar red Session View rectangle appears. For APC40 users – because they're so alike, it's easy to load a Live set that you built for the '40 and use it straight away – this might put it into your head that you can use the '40 in the studio, and use the '20 as your takeout version... And why not?

The APC20 looks and feels like the APC40. It works the same with Live, as far as clip/scene launching, and grid navigation goes. It also works with Max For Live in the same way. The Shift button feels like what it is: a workaround to retain the APC40's control functions with less buttons.

Excess Means Success

When you connect an APC20 and an APC40 to your computer, launch Live, and select them in MIDI Preferences, you'll get two of those coloured rectangles on screen, surrounding the relevant Session View clips, and something quite awesome happens: the APC20 slaves to the APC40, so as you navigate the rectangle around the Session View, both devices change their focus across 16 tracks!

This is an awesome feature, and really makes the APC20 work as an extension of the APC40. Akai really should make more of this in the APC20 promo material! I'm

waiting for the first 'APC60' photos to appear online, as somebody unscrews the end panels and joins 'em up! There are also no compatibility issues between the APCs and the Launchpad – add it, and it'll also get its own rectangle. Novation's Automap software lets the Launchpad do things the APCs don't, including

sending keyboard commands, and interacting with other music applications.

When Akai or Novation talk about adding up to six of their controllers, that would be in any combination, so you could have four Launchpads, an APC20, and an APC40, for the setup of your dreams. Nice.



Send 1, Send 2, Send 3, User 1, User 2, or User 3. So far so fair enough but the Mode buttons don't stay lit to remind you of your selection, and it feels unnatural to switch from making a

format of the original APC40 and I wonder how they feel about these design compromises? Still, at least it has faders, and they are solid and great for levels. In fact, apart from the

mode-related problems, the APC20 works just as well as the APC40. If you wanted a backpack-friendly, cheaper APC40 then this is it.

Likewise if you wanted a Launchpad with faders, this is it. But if you want a controller interface that lays everything out clearly in front of you, this isn't it then you're better off with a '40.

Try to get hands-on with the APC20 before you buy it. If you're cool with the Shift button and multifunction faders, then what's not to like? **FM**

The smaller size means this is a lot easier to find room for than the APC40, in a studio or a DJ booth

Inescapable I guess but I struggled with the multifunction faders. You assign these by holding Shift, then pressing one of the Record Arm/Fader Mode buttons, to select either Volume, Pan,

volume fade to a send effect for the same track. It works and if you're not ducking and diving between sends and pans it's find. But it's kludgy, at best. Ableton were very involved with the



Ableton Live uses a red outlining in its scene view to indicate which section of clips are currently visible in the APC20's clip launch section. OK, so you still can't see their names but what do you want? Blood?

SPECS

PC: 1.5GHz, Windows XP or Vista, soundcard. ASIO driver support recommended

Mac: G4/Intel, OS X 10.3.9/10.4+ recommended 512MB RAM/1GB recommended, QuickTime 6.5 or higher DVD-ROM drive, USB port Ableton Live 7 or 8

Hardware: USB port Mains power connector (included) 40 clip launch buttons with green/red/amber LEDs 5 scene launch buttons 8 clip stop buttons 8 track activator buttons 8 solo/cue buttons 8 arm/fader mode buttons Note mode button Shift button 9 multi-function faders

Dimensions: 295 x 333 x 57mm

Weight: 1.7kgs

ALTERNATIVES



Akai APC40

£350

Needing no introduction. Features a ton of knobs and less shift-ing to access features. Not so portable.

akaipro.com



Novation Launchpad

£149

Same visual feedback, more mobile, and USB powered. No knobs or faders, though.

novationmusic.com



Apple iPad

£78C

It's just a matter of time before the iPad hosts awesome controllers for Live.

apple.com

FutureMusic VERDICT

BUILD	■■■■■■■■■■
VALUE	■■■■■■■■■■
EASE OF USE	■■■■■■■■■■
VERSATILITY	■■■■■■■■■■
RESULTS	■■■■■■■■■■

The APC20 is a seriously useful Live controller. But if you need more, spring for the '40 instead.

Korg PS60 | £704

Want to take your studio songs out on the road? **Jono Buchanan** unpacks the latest solution from Korg



WHAT IS IT?

A 'performance synthesizer' designed for live ease of use

CONTACT

Who: Korg
Tel: +44 (0)1908 857100
Web: korg.co.uk

HIGHLIGHTS

- 1 Sound accessing is easy as pie
- 2 Lightweight and easily portable
- 3 Connection to DAW makes plug-in use possible

SPECS

Keyboard: 61-key velocity-sensitive keyboard, no aftertouch

Sound Engine: EDS-i (Enhanced Definition Synthesis - integrated)

Polyphony:

120 voices (120 oscillators) max, single mode;

60 voices (60 oscillators) max, double mode

User Interface: Display: 16 character x 2 line LCD (with backlight)

Dimensions:

925 x 291 x 90mm

Weight:

4.6 Kg

As our studio-based systems for songwriting and production grow more advanced each month, it's easy to forget that live gigs have never been so popular.

One of the surprise upshots of the 'digital democracy' that paid-for and free downloads have provided has been that the appetite to get out and see gigs of all shapes and sizes is incredibly healthy right now.

For those looking to convert their studio tracks to the stage, this can yield some interesting choices – if you're a keyboard player, do you want to take a laptop and keyboard controller with you, or would a single dedicated instrument packed full of 'made for live performance' sounds make life easier? If you'd prefer the latter, read on.

Performance synth

Korg's PS60 addresses precisely this need by providing a 61-note keyboard with simple-to-access sounds in six categories – Acoustic Piano, Electric Piano, Organ, Strings, Brass and Synth, with 440 sounds provided in total, which employ Korg's EDS-i sound engine at their heart.

To play through these, simply click the 'On' button in the bank of your choice and use the 'Up/Down' arrows

or the rotary encoder under the LCD to scroll through these presets. To the right of the sound selection buttons, you can enhance these performances with effects and EQ.

The latter features dials to enhance or cut bass, mid and treble, while the Modulation effect offers a choice of Chorus, Flanger, Phaser or Vintage Flanger/Phaser, while the 'reverb' section provides Hall, Plate, Room and Delay options.

Both of the effects sections also feature real-time knobs for enhancement, so changing reverb length or chorus speed for instance, is child's play. On the left-hand side, you'll find the performance section, which provides further controls, switches and menus designed to make arranging and performing your live gig as straightforward as possible.

You can organise single sounds or layered/split sounds, complete with their effects settings, into Performances, which can then be saved into one of 20 locations – four banks of five Performances – for instant recall, which should be enough to cover a whole gig comfortably.

Connections and thoughts

Along the back panel, you'll find MIDI I/O, two pedal inputs (one each for sustain and expression), stereo outputs

and a USB port. The latter unlocks the PS60's potential as a direct controller keyboard for your DAW and better still, will allow sounds to be edited comprehensively via Korg's own editor and promise to integrate its operation as a plug-in into your host software.

Like the brilliant plug-in implementation of Korg's M3 and M50 this feature increases PS60's appeal substantially. You can edit sounds from the front panel to some extent too but the emphasis is very much here on performance, so rather than endless menus of parameters, only a selection of the usual suspects are offered, including filter cutoff, resonance and envelope settings. If you're gigging regularly and simply need to have your keyboard requirements met, the PS60 is definitely worth a look.

It's functional, rather than flashy, and shuns the typical 'edit all you like' nature of most synthesizers in order to offer immediate access to its sounds. My two main gripes with the PS60 are that it's a touch expensive, and that the synth section is definitely a little light on bass sounds. Otherwise though, this is a high-capable performance instrument that's light and fast enough to be a tempting gigging solution. **FM**

FutureMusic VERDICT

STABILITY



VALUE



EASE OF USE



VERSATILITY



RESULTS



A highly-portable performance keyboard and synth with both feet planted firmly on-stage.



Play Live



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DESIGNED AND DEVELOPED BY



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WHAT IS IT?

CONTACT

HIGHLIGHTS

SPECS

Weight:
15.7 kg

FutureMusic VERDICT

STABILITY

■■■■■■■■■■

VALUE

[illegible]

EASE OF USE

Page 10 of 10

VERSATILITY

PERCENT LEFT

RESULTS

RESULTS

Year	1990	1995	2000	2005	2010	2015	2020
Population (millions)	1.2	1.4	1.6	1.8	2.0	2.2	2.4
GDP (billions of dollars)	0.5	1.0	1.5	2.0	2.5	3.0	3.5
Life expectancy (years)	55	60	65	70	75	80	85

Does exactly what it promises, but

costs far too much when compared

to the alternatives on the market.

to the objectives of the mission.



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ON THE DVD

WHAT IS IT?

A sophisticated VSTi dedicated to the kick drums with sample and synthesis toolbox

CONTACT

Who: Vengeance Sound
Web: vengeance-sound.com

HIGHLIGHTS

- 1 Great library of presets
- 2 Good GUI / interface
- 3 Intelligent Randomizer function



Vengeance Metrum | £135

Vengeance are back with their second Vengeance Production Suite plug-in. **Marc '01'** kicks it

Anyone with half a clue about producing Dance music knows that a great kick makes a track happen on the dancefloor. Get this right from the start, and the rest will follow. So for anyone who has wrestled with the job of refining their kick sonics, Metrum – a plug solely devoted to producing kick drums – seems like the ideal tool.

Being a one trick pony only works when it's a really good trick, especially

when it's not exactly cheap. On paper, Metrum is certainly not lacking any features. The kick engine allows you to combine up to three sample layers with one synth layer to form an infinite spectrum of all new kick drums.

Each layer can be modified and edited using a pitch and amp envelope, filtered and treated with a suite of six effects. And there's a mod matrix to twist the sound further and morph it in real-time via MIDI.

Four on the floor

The sample layers use the drag and drop method to load audio files directly from Metrum's browser. Pressing the library tab opens the preset window whereby you can search and preview the potential material.

The library is divided into four main categories and depending on your needs, you can load a full four-layer kick preset, or just a single layer preset. These are split between the Oscillator and the sample bank, which are known as Attack presets.

Browsing is smooth, with play and autoplay options, plus 'drag and drop' or double-click to load, which all add up to a very smooth workflow. Each sample has the obvious parameters such as volume, tuning and filters plus Spike, which boosts the attack portion to help it cut through the mix. You can also delay the sample to make it start a bit later than the other layers, and there is a start offset knob on the amp page. The envelopes all feature bendy curve points which are without doubt the best type for designing percussion sounds, and are all very smooth to use.

Interfaces: VST on Windows, VST/AU/RTAS on Mac OS X

Minimum requirements:
PC: VST2 compatible host software on a PC with SSE2 supporting processor, Intel Core 2 Duo or better recommended

Mac: OS X 10.4+ on a G4 processor or newer, Intel Core 2 Duo or better recommended

2 x LFO (1 sine, 1 sine/tri/saw/sqr) 0Hz - 20kHz

2 x ADSR

2 x VCO (saw/PWM) 0Hz - 20kHz, VCO1 with SubOsc

2 x VCF (two variable outlets each: LP1/LP2/LP3/LP4, HP/BP/BR)

2 x VCA/Pan

1 x stereo chorus

1 x ping pong delay

1 x Bass/Treble booster



**Platinum
Award**

Does the world need another soft synth? **Jono Buchanan** finds the Ace up U-he's sleeve...

which can produce some wild noises. Also, VCO outputs can be used as modulation sources themselves, with unusual and great-sounding results. My only gripe is a graphical one – if you connect either of the ‘noise’ sources in the bottom left hand corner, the trailing patch cables obscure the other mod outputs to the right.

This is a great sounding synthesizer. Its clarity and crispness are noteworthy and, for me, exceed the quality of signal you get from most soft synths. However, the real power here is in the patch cables – a great way to learn for newcomers and a more open template for seasoned sound designers. At 69 Euros you can't go wrong but if you want a safety net, download the demo first. I'll be stunned if you don't follow up with a purchase. **FM**



An 'analogue' style modular synth from U-he providing high-quality sound with an emphasis on user patch creation

Who: U-he
Web: acesynth.com

- 1** Crisp, clear sound, particularly at 'Accurate' quality
- 2** Modular patch building
- 3** Great value for money

It's a bold question for a synth software developer to pose on their own website: does the world really need another soft synth? It's fair, though – we do seem to be awash with wonderful, affordable instruments that outwardly appear to have our synth bases covered. U-he clearly think there's scope for more as they proudly unveil Ace – a fully configurable modular synth for the 21st Century.

Appearance-wise, Ace will be familiar to anyone who has spent time with analogue and/or modular synthesizers. The panel is labelled with the synth's various modules with LFOs on the left, the VCO section next, a central narrow Mix area, before the VCF (filter) module and ADSR (envelopes) section complete the panel. At the top on the left are a series of buttons for playback mode (mono, poly etc), pitch bend range and other parameters, including a 'Quality' setting which can be toggled between Draft, Standard, Good and Accurate

modes. Stepping between these improves the clarity in the signal by increasing the internal sample rate of the synth. The cost of doing this comes to your CPU as, at 'Accurate' settings, Ace will tax your computer quite hard. However, you'll frequently choose a 'lower' quality setting anyway, as the slight grit which comes here often enhances the sounds you build in positive ways.

Modular synths are always fun and Ace is no different. There are 24 signal outputs and over 30 inputs, so chaining one module into another is child's play. There's a great selection of presets to get you started and as the connections are obviously so visible, you can either find a sound you like and slowly take its connections apart or enhance it with further modulation possibilities, simply by dragging a cord from a source to a destination. There are some great surprises – the LFO output rates can climb to over 20kHz, for instance,

STABILITY

VALUE

EASE OF USE

VERSATILITY

RESULTS

A great-sounding, intuitive, powerful and fun synthesizer. For the price, you can't go wrong.

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Roland Gaia SH-01 | £579



Roland go retro with the emphasis on hands-on control. **Robbie Stamp** goes back to the future...



WHAT IS IT?

64 voice/three oscillator virtual analogue synthesizer

CONTACT

Who: Roland (U.K.) Ltd
Tel: +44 (0)1792 702701
Web: roland.co.uk

HIGHLIGHTS

- 1 Made for hands-on playability with simple and intuitive patch creation
- 2 No LCD screen because there are no menus
- 3 Powerful (virtual) analogue sound

Synthesizer trends regularly flip-flop between radical innovation and retrogression with each pendulum swing

producing a host of hybrids. Roland has had its fair share of winner and losers in this field but with the Gaia SH-01 it is (at last) looking to produce a hybrid winner with thoroughbred credentials.

Just look at it. No LCD screen, a dedicated knob or fader for every purpose. The Gaia SH-01 is a chip off the old analogue block and while the synthesis is digital, or 'virtual analogue' if you prefer, it allows for a range of functions unavailable in analogue electronics at anything near this price ('street' at just under £500). With the quality of digital synthesis creeping ever closer to the analogue standard Roland are finally on target to make a synth worthy of the 'SH' badge of honour.

Tweaker

The black and white design is smart and crisp while the controls and markings blend the Roland analogue

synths of the past with a more modern aesthetic. It's worth pointing out that the unit is remarkably lightweight, while the plastic casing seems robust enough for live performance. Nearly every parameter has its own form of visual feedback, from the slider and knob positions to the backlit buttons and this makes patch creation and editing as simple and immediate as any analogue synth. In fact the layout so 'left to right' intuitive that the user can get straight into tweaking and playing the second the Gaia is plugged in. No manual flicking and head scratching necessary.

You start on the left with the Tone selection buttons that select and operate the three Tones (effectively three synths, each with its own oscillator, LFO, modulation LFO, filter and amplifier). Tones can be edited singly or together by pressing and holding the appropriate Tone Select buttons. There is also a Tone Copy button to duplicate tone settings to speed up editing and patch creation. After Tone selection comes the LFO

controls, followed by the OSC (oscillator) section, the Filter controls and ending with the Amp section. The LFO features six waveforms (triangle, sine, sawtooth, square, S&H and random) with a rotary speed knob, a tempo sync button, flashing speed LED and sliders for the LFO assignment: Fade Time, Pitch Depth, Filter Depth and Amp Depth. The LFO can itself be modulated further by the seemingly invisible Modulation LFO. This extra layer of control comes courtesy of the Modulation lever (ie. the vertical motion of the pitch bender) and, with the help of the SHIFT button (see The Joy of SHIFT opposite), has its own waveform and speed and can be assigned to alter any of the LFO parameters. While on the subject of SHIFT, the Amp Depth control also doubles as the Tone pan LFO modulation control when used with SHIFT. For a section that only has one knob, two buttons and four sliders there is a wide range of modulation possibilities available, from the subtly evolving to the out and out crazy.

Oscillator

As with all synths the oscillators are where a lack of quality spells certain doom despite quality elsewhere. The SH-01 does not disappoint on this score and provides a healthy selection of waveforms (sawtooth, supersaw, square, triangle, sine, noise and pulse/PWM), each with three variants. Though these are not explained in the literature these variations possess slightly different harmonic weightings and effectively gives you 21 waves to start from.

It's great to stack three of the same waveforms (or variations thereof) across the three Tones, especially with the infamous SuperSaw (add detune and

D Beam

This light beam controller can be assigned to pitch, volume or any other parameter you like

Tone switches

Each Tone comprises an Oscillator, LFO, Modulation LFO, Filter and Amplifier. Single or multiple tones can be selected for editing simultaneously

Modulation lever

The Modulation LFO for each tone can be quickly assigned to any LFO parameter





panning to taste!). The pitch and detune knobs lead double lives thanks to the SHIFT function where they control the master tuning and oscillator pan position respectively. There is a 'mod' function here that uses Osc 2 to modulate Osc 1 either in Sync mode or as Ring Modulation and two sliders are dedicated to the Pulse/PWM waveform. A pitch envelope is also provided with attack and decay sliders and an envelope depth control. As with the LFO section this is a comprehensive approach without drowning the user in controls and options and the results are excellent both tonally and creatively.

The Filter section consists of three knobs (cutoff, resonance, keys follow +/-), five sliders (ADSR envelope and depth +/-) and two buttons (filter mode and slope). The layout is simple and leaves enough space for the constant tweaking this section will no doubt receive. The four filter modes (LPF, HPF, BPF and Peaking) are available with two slopes, 12dB per octave and 24dB per octave. The filter sounds great in all modes and there is plenty of dynamic shaping to hand with the

The Joy of SHIFT

Like many people I have a tendency to open the box, plug in and get going before really consulting the manual. Though I was getting great sounds straight away there were many functions I could not immediately alter. One quick look at the manual and all became clear – if it doesn't have a dedicated control then some combination of the SHIFT button and another

control will access it. At a patch level the SHIFT button can access two more controls for each effect (as there are only two control dedicated knobs), oscillator panning, modulation LFO assignments, pitch bend ranges and so on.

At a global level the SHIFT button accesses (in combination with other controls) system parameters such as

master tuning, velocity sensitivity, D-Beam sensitivity, clock sources, MIDI parameters, etc. The Gaia possesses a deceptively deep control system that neither hinders playability by offering too many 'at hand' parameters nor restricts sound manipulation and system integration due to an over simplified feature set. Well done Mr Roland.

ADSR envelope. The digital nature of the SH-01 does come to light here more than anywhere as fast filter sweeps, especially at high resonance, can sound a little stepped, but with effects and different filter settings across the multiple tones the stepping is masked.

The final Amp section is simply an overall Level knob for the selected Tone(s) and a four slider ADSR envelope control which delivers well from

SHIFT button). I particularly appreciate the Key Hold function as a note/chord can be sustained without an external pedal (there is a TRS jack for a sustain/expression pedal), allowing for a proper two handed tweaking. At the far left of the SH-01 is the D-Beam (light beam) controller which can be assigned to volume, pitch or any other control(s) via the 'Effects/Assign' button. Hit the button, tweak the parameter – bingo –

it's on the D-Beam.

The arpeggiator, provides 64 preset patterns (easily enough I reckon), while the Phrase Recorder allows for

up to eight 'phrases' (ie. internal MIDI note/controller movement recordings) of one to eight bars in length to be recorded, edited (very simply), stored and played back. This is a useful performance tool as well as an excellent way to audition patches for a particular line or riff. Patch storage is simple providing 64 user patches alongside the 64 factory presets.

It's worth mentioning at this stage the slight cheesiness of the presets on board. There's plenty of 'Faithless Lite' and 'Basshunter-ready' sounds here that rather play down the analogue simplicity and fun to be had. Honestly, starting with a blank patch and building it tone by tone is much more fun than trying to untangle the sounds already on board to

SPECS

Keyboard: 37 keys (3 octaves) – velocity sensitive

Polyphony: 64 voices

Oscillators: 3

Waveforms: Saw, Square, Pulse/PWM, Triangle, Sine, Noise and Super Saw

Envelopes: 3x Attack/Decay (for oscillators), 6x ADSR (for each filter and amp per oscillator)

Filter types: LPF, HPF, BPF, PKG (Peaking) with 12dB or 24dB per octave slopes

LFO: Triangle, Sine, Saw, Square, Sample&Hold and Random waveforms with Fade Time, Pitch/Filter/Amp Depth sliders, Rate knob and Tempo Sync

Effects: Distortion, Fuzz, Bit Crash, Flanger, Phaser, Pitch Shifter, Delay, Panning Delay, Reverb and Low Boost (3 per patch)

Controllers: Pitch Bend/Modulation lever and D-Beam controller

Patch Memory: 64x Presets, 64x User

External Memory: USB flash key

Arpeggiator: 64 preset patterns

I/O: 2x 1/4" TS output jacks, 1x 1/4" TRS headphone jack, 1x 1/4" TRS pedal jack, 2x MIDI I/O sockets, 1x USB socket (for USB 2.0 audio/MIDI computer interface), 1x TRS minijack external input, 1x USB 2.0 socket for flash memory key, DC in

Accessories: Manual, Patch creation guide, DC adaptor, USB driver CD-ROM, tutorial DVD Video

Dimensions:

689 x 317 x 100mm

Weight:

4.2kg

It's great to stack three waveforms – especially the infamous SuperSaw – then add detune and panning to taste!



Phrase recorder

Up to eight phrases (key and controller movements) can be recorded, edited, stored and played back in one to eight bar lengths

percussive punches to slow attack/long release shapes for ambient pad sounds. The overall output level from the SH-01 is healthy, clean and not limited with regards to frequency, delivering a pleasingly full and punchy tone. The final sound shaping section is the Effects (see Gaia Effects over the page) which keeps to the overall brief of quality with simplicity.

Performer

Of course the standard performance controls are all present and correct (portamento, mono/poly switching, octave up/down, transpose, tap tempo, pitch bend/modulation lever) with parameter adjustments just a couple of finger moves away (usually involving the

ALTERNATIVES



Roland SH-201

£519

This physically larger predecessor has an extra octave on the keyboard and can layer two 'tone' layers simultaneously. Potentially you could bag a bargain as the SH-01 is replacing it.

roland.co.uk



Moog Little Phatty Stage II

£899

You could buy two SH-01s for this price, but for hands-on playability, true analogue synthesis, CV connectivity, superb Moog filters you can't really beat the Little Phatty.

moogmusic.com



Korg microKorg XL

£445

Smaller than the SH-01 and only featuring two oscillators, but comes with a built-in vocoder. Also features sample based patches, but at the cost of using an LCD screen (bah!)

korg.co.uk

make them more original! And you simply don't notice the lack of an LCD screen. This is the most 'funnest' synth we've used in a very long time.

Patch data backup is available via a USB flash key socket and is a great way

can just dive straight in with the filter sweeps, modulations and effects to make the sound their own. You might be a softsynth master but you just can't beat the physicality and speed of a synthesizer and the Gaia positively *begs*

With regard to whether the Gaia is worthy of its 'SH' suffix I would say 'yes'. Classic analogue synths are always a joy to play and engage with and are yet to be seriously challenged with regard to tone and depth by any digital instrument. That said their cost and, in many cases, reliability inhibits their mass appeal, and thus 'virtual analogue' is very welcome to plug the gap.

You just can't beat the physicality and speed of a synthesizer and the Gaia begs you to make new sounds

to use up those old low MB data keys. This is great. Shame the same can't be said of the way the headphone output cuts out the master outs when you plug in phones. Not very 'pro', that.

Screamer

Overall it's the sheer playability and tweakability that means that the user

you to make new sounds as soon as you engage Tone 1. Though borrowing some of its look from the original SH analogue units the Gaia is a thoroughly modern instrument which can produce fat monosynth basses, through screaming leads, to big rave pads and arpeggiated euphoria. It's very much what a performance synth is all about.

In the Gaia SH-01 Roland have made a smart move, creating a flexible, tonally pleasing, infinitely playable and cost-effective synth. Oh yes, in case that isn't enough it also has a USB 2.0 port so it can even act as an audio MIDI interface too.

All-in-all, Gaia is great fun and great value. Death to the menu screen! **FM**

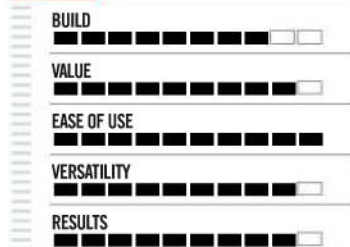
Gaia Effects

The Gaia effects section is simple, easy to use and provides a surprising amount of patch enhancement. There are essentially four effects blocks in the chain, though the fixed Low Boost effect (self explanatory) that comes on the end is technically a

fifth. There's three distortion choices including a neat rough and ready Bit Crash effect. There's Flanger, Phaser and Pitch Shifter. Next are various delays. And finally Room, Plate and Hall variation reverbs. With a combination of the two control knobs (Control

1 and Level) and the SHIFT button (accessing Control 2 and 3) this simple effects chain has plenty of scope and all the presets give it a thorough workout. The Tempo Sync, Effects On/Off and Select Control buttons round off this economical and intuitive section.

FutureMusic VERDICT



Playability, value for money, with solid sound quality make this 'retro-modern' synth a winner.



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SPL DrumXchanger | €336

Stuart Bruce puts the new drum replacement plug-in from SPL through its paces...



WHAT IS IT?

A drum sound replacing plug-in with its own sample library and some serious on-board processing

CONTACT

Who: The Audio Professionals
Tel: +44 (0)1923 693770
Web: spl.info

HIGHLIGHTS

- 1 Highly controllable trigger setup
- 2 Onboard sample library or build your own
- 3 The ability to mix original signal and sample with a separate transient designer for each signal path

SPECS

Plug-in formats: AU, VST and RTAS

Platforms: Mac and PC

SPL's Transient Designer is probably the most original dynamic processor to have appeared in the last 15 years

and that technology lies at the heart of the DrumXchanger. So, having inserted it on the channel to replace, off we go.

Starting on the left you have an input gain which gives +/-15dB, four preset buttons to store different settings of the device with the ability to copy and paste between them, and an Editor button which accesses the page where you can build your own sample libraries.

Next up is the input stage. Here you can manipulate the source sound using the first of the two built-in Transient Designers, adjust it using high and low pass filters and then set a ducking level should you want the spill, but not the sound you are replacing.

The trigger section is very comprehensive. You can filter the trigger signal and adjust its overall gain into

the system, then using the two green trigger thresholds you can set different levels for both the transient and the overall level. The sample will only trigger when both are reached.

With judicious use of the first Transient Designer and the filters, it's possible to fine tune your trigger signal even on really difficult tracks like snares with lots of hi-hat spill. The red arrow is a 'rim' threshold. This is set higher than the standard threshold to catch just the loudest peaks which can trigger an optional rim hit snare, level adjusted by the rim knob.

Loose change

SPL provide the Xchanger with three sampled kits which you can access with the buttons above the drum kit graphic. These sound good but to make it as flexible as possible you can build your own sample sets using the editor page. Unfortunately the Xchanger only likes

WAV files so if, like me, you have thousands of AIFF files you will have some converting to do, which is a pain. Yes you can batch convert but I wish it just took other formats.

Having said that, once you've got the WAV files it's very easy to put them in. Each of the eight available dynamic levels can have its own sample and you can even put in an optional rim sample if you like. If you only put in one sample it plays across the whole trigger range, so you don't have to have multi-samples for it to work. You then save this as a preset and you can call it up using the load button on the front panel.

Stock exchange

Once you have chosen your sample you can process it using more filters and the second transient designer, you can change its pitch and then blend it with the original sound using the dry / wet control, or just use it on its own.

On a good clean input signal it takes very little time to set up. The triggering is rock solid and the phase is remarkably good. You can swap the sample phase and advance or delay its playback, but I didn't need to do any of that in my tests, it just worked. With difficult trigger signals you have to do a lot more fiddling but then that's why SPL have given you so much control. It's possible to get things to trigger that many other systems would give up on.

The addition of the four presets means you can set up your basic trigger, copy it to the other presets and tailor these to any problem moments. With a bit of judicious automation to swap between them, you can tame pretty much any problem track without having to edit the audio. Great as this is, SPL promise MIDI triggering capability very soon with version 1.2, which will be a free upgrade to all existing users. This is a fantastic plug, with incredibly powerful drum replacement features. **FM**

FutureMusic VERDICT

STABILITY



VALUE



EASE OF USE



VERSATILITY



RESULTS



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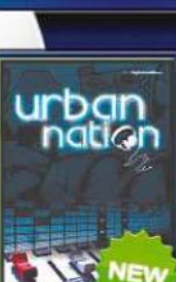
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A portable single oscillator analogue monosynth

CONTACT

Who: Schneiders Buero
Tel: +49 (0)30 9789 4131
Web: technosaurus.ch

HIGHLIGHTS

- 1 Juicy Acid-style filter
- 2 Extra sub oscillator beefs it up
- 3 Built to a high standard

The mighty Technosaurus name has been around since 1996 when they released the rather epic Selector analogue

modular system. A year later, they came full circle and produced the bite sized Microcon. Acid music was at an all-time high and everyone wanted the sound of legendary 303, so it's no surprise that the synth they chose to build this time had a similar set of features. The Microcon II takes the original and adds a handy MIDI port for studio integration.

Bleeping with dinosaurs

Microcon's circuits are housed in a solid metal case with a black and white

silk-screened top panel. The dials are stuck strong and there's definitely no chance of these wobbling or snapping off at any point in time.

Initially they feel a bit stiff to turn, but they speed up after a few sessions. The switches are all two-position types, the same kind you tend to find on DJ mixers and for the most part, their low profile keeps them out of the reach when tweaking the knobs.

MIDI gets plugged in the left side with a standard DIN socket, and since there is no Thru port this will have to be the last stop on the chain. To change the channel it receives on, you will need a small flat head screwdriver to twist the little recessed selector to one of its 16

positions. The 12v DC PSU is plugged in over on the right side, next to this is a slot for a stereo quarter-inch jack. The tip and ring of the stereo jack are used separately so that one cable can be used for the regular mono audio out, and to route a mono signal back in to feed the VCF. If a normal mono or unbalanced cable is plugged in, then this will carry the audio out signal only.

The CV era

There are two more sockets on this side, these are both balanced mini-jacks and work the same way, with each one carrying two separate signals. The first outputs CV1 and CV2 to patch into



**WHAT IS IT?**

Two classic 1960s drum kits recorded at Abbey Road Studio in Kontakt instrument form

CONTACT

Who: Native Instruments
Tel: +49 (0)30 6110 350
Web: native-instruments.com

HIGHLIGHTS

- 1 Great tone, depth and clarity
- 2 Velocity and sample alternating is excellent
- 3 Stunning ambience



NI Abbey Road Drums | €99

NI offer a slice of Abbey Road with two classic drum kits. **Robbie Stamp** goes back 50 years

SPECS

Early '60s Kit: Gretsch White Marine Pearl/Jasper shell, 24" kick, 13" rack tom, 16" floor tom, Ludwig wooden Jazz Festival snare, Ludwig Mahogany snare. **Late '60s kit:** Ludwig Hollywood, 22" kick, 12" and 13" rack toms, 16" floor tom, Ludwig chrome Supra-Phonic 400 snare, Slingerland maple Radio King snare

System Requirements:

PC: 2GHz CPU, 1GB RAM, Windows XP/Vista

Mac: 2GHz CPU, 1GB RAM, Max OS X 10.4 or higher and Universal Binary

Hard Disk Space: 6.3GB compressed (14GB uncompressed)

Compatibility: Kontakt 4/Free Kontakt 4 Player

Abbey Road '60s Drums offers two drum kits recorded at Studio Two with the mics of the day tracked through two EMI mixing consoles: the valve amplified late '50s/early '60s REDD.17 and the late-60s all transistor TG MkII. The drums have been selected as representative of their eras with the Early '60s model a four-piece Jasper shell Gretsch with two Ludwig snares and the Late '60s kit, an original five-piece 1967 Ludwig Hollywood with Ludwig and Slingerland snares. These kits are completed with a set of '60s Zildjian cymbals.

The GUI design uses the distinctive knob and fader designs from the REDD and TG series consoles and the mixer page features a set of individual drum mic channels and three kit channels: mono overhead, stereo overhead and stereo room. Both drum kits come in three instrument flavours: Full, Lite and

Vintage. The Vintage version of each kit only loads the channels that were standard to the Abbey Road mic setup of the day: mono overhead and kick drum for the Early '60s and mono overhead, kick, bottom snare and tom mics for Late '60s. The snare and kick channels are a mixture of top/bottom and inside/outside mic positions respectively, with sliders on the main GUI page adjusting their balance.

The Options page features basic response controls (velocity, key range, randomisation, etc) as well as a 'Snare Mic Bleed' slider to set the level of the other drums picked up by the bottom snare mic, helping enhance realism when only a few channels are used.

White coats and teatowels

The formal nature of the recording process at Abbey Road in the 1960s keeps the resulting collection focussed on excellent sound quality and realism,

uncluttered by the usual plethora of secondary controls. This collection does not try to slavishly recreate the Beatles drum sound and instead makes full use of the unchanged acoustic of Studio Two. Both kits sound superb straight off the bat with a great balance of clarity, depth, transient precision and old school 'body' (especially the Early '60s kit). Though the direct mic channels sound great and allow for a pleasing dry sound on their own, it is with the overheads and room mics that the sound really sings.

Studio Two is a large room (200m² floor with an 8.5m ceiling) and makes for a powerful impact, but the depth quality of the velocity layering creates excellent results for subtler Jazz styles. The quality of the ambience is such that I keep tending to use only the room mics, the mono overhead and the kick drum channel, which combined create a beautifully open and natural tone. At the other end of the scale the Late '60s kit also features a selection of Ringo-esque teatowel covered sounds for the snare and toms which, when biased towards the direct mics, creates a lovely dry, tubby, funky tonality.

Now and then

Abbey Road '60s Drums' historic element does not limit its application – it is easier define with regard to what it can't do, i.e. tight, dead, highly processed drums (Jazz-Funk, Metal, etc). The trend for old school, big studio drum sounds makes this collection as 'now' as it is 'then'. Yes you can sound a bit Beatles, or even like the Shadows, but it allows so much more as it is a well-crafted slice of the tonal character that Abbey Road is famous for. As for value, this may seem expensive for just two drum kits, but it is a classic and distinctive sound set could see a lot of action in many setups. If classy real drums are your bag then this is definitely a good investment. **FM**

FutureMusic VERDICT**STABILITY****VALUE****EASE OF USE****VERSATILITY****RESULTS**

Excellent clarity and depth coupled with a nice interface make for results that go far beyond the '60s.



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(and fewest compatibility problems) :)
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Deadmau5

Deadmau5 logical choice of interface

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Sontronics Saturn | £699

One mic to do it all? **Trevor Curwen** wonders if the Saturn will run rings around the competition...

WHAT IS IT?

Multi-pattern condenser microphone

CONTACT

Who: Sontronics
Tel: +44 (0)202 236862
Web: sontronics.com

HIGHLIGHTS

- 1 Cool retro looks
- 2 Multiple polar patterns
- 3 Airy top end



Since their launch in 2005, UK mic company Sontronics have expanded their range to include a collection of

different types – some featuring quite eye-catching designs. The company's latest, the Saturn, will certainly catch anyone's eye, with its retro look reminiscent of the huge RKO radio announcement mics of yesteryear. So what's the thinking behind it?

Sontronics' founder, MD and designer Trevor Coley told us that over the last few years he has been asked the same question countless times from end users... "I need just one microphone that is good for everything, which one should I buy?" The usual answer to this one has to be that there is no such microphone. While all mics will record audio, they are like tools in a toolbox – specific ones for specific jobs – and while it's true that you may be able to bang a nail in with a spanner, you'd get better results by using a hammer. Nevertheless, the question set Trevor thinking and led him into more research in the quest for a mic that could be all things to all users.

The result of this research is Saturn, a multi-pattern condenser microphone. Trevor tells us that the microphone has been in development for over two years and during the last twelve months it has been beta-tested by some of the top names in the business, including producers Flood, Alan Moulder and Paul Staveley O'Duffy. He says that the results have been outstanding and that Saturn is a real go-to for vocal recording but also, true to the original plan, capable of delivering great results on everything else it comes into contact with. Bold claims – let's take a look.

Saturn comes with a smart aluminium carrying case with combination locks. There are two components to Saturn – the microphone itself and its tightly engineered suspension cradle for attachment to a stand. The most striking aspect of the mic is the large circular silver grille/capsule – almost 3.5" across and flexibly suspended in the centre of a 6" diameter metal ring by four small springs. The mic's diaphragm is connected to the rest of the electronics (inside a rectangular box connected to the metal ring) via wiring inside a spring ensuring that the whole capsule is free-floating. All of the switching options reside on the front panel of the box. Of these, there's a pad switch with options of 10dB or 20dB of attenuation if you need it, plus

They say the full moon brings out the lunatic. With mini synth in hand, **Marc '01'** howls in the darkness

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Yamaha S70XS | £2,299

Is it a synth? Is it a stage piano? Well, it's both and more! **Dan 'JD73' Goldman** puts Yamaha's latest S-series board through its paces



WHAT IS IT?

Versatile, weighted stage piano/synth, based on the Motif XS sound engine

CONTACT

Who: Yamaha
Tel: +44 (0)1908 366 700
Web: yamahasyth.com

HIGHLIGHTS

- 1 Well-built with a playable weighted piano action
- 2 Lots of connectivity, USB for MIDI and computer connection plus mic/instrument input/vocoder
- 3 A huge selection of bread and butter sounds onboard

Originally launched a decade ago, Yamaha's 'S' line was designed to offer top-end sounds and features in a package specifically aimed at stage/solo performers rather than hardcore sound designers. Now, after several incarnations, Yamaha have launched the XS-labeled, S-series keyboards, currently comprising the S70XS (the subject of this review) and the S90XS.

The only difference between the two is the length of keyboard, with the 70 having a 76-note note weighted hammer-action keyboard and the 90 having an 88-note board. The action itself is very nice indeed – well balanced and not too heavy, nor does it suffer from any sponginess, plus it's playable for all types of sounds/instruments, including synths and organ stuff too.

Light hearted

I always shudder with the thought of doing my back in when unboxing/carrying weighted boards for review, and though the S70XS is not what could be described as lightweight, it's certainly manageable and I was even able to

carry it myself into my studio. However, bear in mind that once it's in a case for gigging, the S70XS is a two-man job.

Quality is very good throughout, with nice wooden end panels and a military-grade metal case. All the sliders and dials feel great, in line with what you would expect of an instrument at this price point. There's even a vast

table-like expanse top left to rest your laptop on. (Really, does it need to be this big? Wow.)

Interface and layout wise it's a mixed bag, however. There's a lot going on on the front panel (too much, in my opinion, for a stage instrument) and it can be pretty confusing to navigate.

Another downside is the tiny screen. While I applaud Yamaha for trying to make everything accessible without having to rely on the screen this is like something from a synth from five years ago. Good job the included Cubase AI4-based VST editor goes some way to make up for this.

Interfering interface

I still feel that some Yamaha boards suffer from unnecessarily complicated interfaces and unfortunately the S70XS continues this tradition and programming it is frustrating at times, with too much scrolling and button pressing for my liking.

On the upside, there is direct access

Connectivity and Arpeggiator

The S70XS has plenty of onboard connectivity, including two sets of stereo outputs (one set to assignable) a mic input (for plugging in mic'd vocals, guitars and routing them through the chorus/reverb effects and vocoder), USB for MIDI connecting to a DAW (such as Pro Tools/Logic and to the included Cubase AI4 VST editor).

Plus, the S70XS can control your DAW's transport and act as a

control surface. On top of this, the S70XS can record all internal and external audio (connected to its input) direct to its onboard flash memory (which gives up to 18 minutes of audio recording or 192MB) or to a connected USB stick.

MIDI files and WAV/AIFF files can also be played back directly from a USB stick or external USB drive too. The onboard arpeggiator has a staggering 6,779 preset

types and 256 user slots, plus up to four parts, so every type of pattern and style is covered.

Elsewhere, there are also some great performance presets that make use of layered arpeggiator patterns stacked with drums, basses and strings that also react to the chord being played for instant and versatile auto accompaniment backings. Perfect for solo performers!



A black Casio S70XS portable synthesizer is shown from a front-three-quarter perspective. The instrument features a 61-key keyboard with white and black keys. Above the keyboard, the control panel includes a small LCD screen on the left, a large circular speaker in the center, and a dense array of buttons and knobs on the right. The model name 'S70XS' is printed in a stylized font on the upper right. The device is designed for portability, with a carrying handle visible on the top edge.

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LA Scoring Strings | \$1,099

The string library battle goes epic with LA Scoring Strings. *Jono Buchanan* tunes up...



WHAT IS IT?

The latest virtual string library to rattle the cages of TV and film composers

CONTACT

Who: Audio Bro
Web: audiobro.com

HIGHLIGHTS

- 1 Divisi ensemble groups
- 2 Onboard 'scripts' for hyper-real performance
- 3 Warm and realistic

SPECS

Interfaces: Standalone, VST, AU, RTAS, ASIO, Core Audio, DirectSound

Minimum requirements:
PC: Windows XP or Vista (32-bit), Pentium or Athlon 1.4GHz, 1GB RAM

Mac: OS 10.4.x, G4 1.4GHz or Intel Core Duo 1.66GHz, 1GB RAM

40GB for complete sample installation, DVD Drive

Two installs per license

For those of you who've been watching the development of sampled string libraries from the sidelines, you might be forgiven for wondering whether there can possibly be room for yet another collection of stringed instruments designed for film and TV composers, or Pop arrangers. The reason this area is still up for grabs is less to do with the quality of the string samples but more with the authenticity of their performance in use.

Enter LA Scoring Strings (LASS), whose remit it is to tackle some key areas of shortfall among the competition. The library plays back through Kontakt or the free Kontakt Player and once you've installed the five bundled DVDs, and downloaded the Version 1.1 update, you're away.

Divisi magic

The first of LASS' unique features is its capacity to split the size of the string sections into a number of divisi blocks. In orchestral performance, pairs of string players form desks and while, most of the time, musical scoring dictates that both players perform the same notes, it's possible to indicate via divisi that one player should play a top-line, while the second should play

a lower line. Impressively, divisi has been comprehensively and accurately sampled with players 'in situ' for LASS so that the awkward placement issues raised by other libraries when such scoring is attempted are lost.

First chair and scripts

Additionally, presets have been created from solo performances by the lead player in each of the string sections, which form the First Chair library.

Again, there are useful implications here – a 'true' string quartet using just the lead players with no accompaniment, or a 'solo and ensemble' approach, where the virtual leader of each section can play his own part, with ensemble backing from those players behind him. The crucial thing here is that the range of colours the library can produce are much wider than most of the competition, partly because these solo players have been recorded on the same big sound stage.

However, the library really comes alive with its variety of in-built 'scripts' which act as performance-enhancing tools. These vary from 'humanising' modules that randomly generate less than perfect pitch, to triggerable legato/portamento style performances, to an in-built step sequencer that lets

you assign rhythmic figures to phrases for any instrument you like.

Additionally, the AMG toggle switch allows you to disengage the dreaded automatic machine-gun problems encountered by so many sample libraries. There are many useful scripts here and it's easy to engage those you need via MIDI control change messages, to breathe life and soul into your music. Impressive stuff.

Coda

This library is excellent. A bit like Gary Garritan before him, there's a single man with a vision behind this library, namely Andrew Keresztes. While he's set himself an almighty challenge to record, edit, promote and distribute this library, he's delivered. The recorded quality of the strings is wonderful and while the 'default' size of the full string orchestra may be larger than some will require, the option to limit player numbers and to divide those as described, makes this a versatile option for anyone looking for a fresh-sounding sampled string library.

The price here dictates that this is for pros or only very serious amateurs but particularly for those composing for TV and film already, this library definitely offers string flavours you'll struggle to find elsewhere. **FM**

FutureMusic VERDICT

STABILITY



VALUE



EASE OF USE



VERSATILITY



RESULTS



Not the cheapest but the performance options here set this library apart.



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WHAT IS IT?

A fully-featured update to NI's popular groovebox

CONTACT

Who: 2Twenty2
Tel: +44 (0)845 299 4222
Web: native-instruments.com

HIGHLIGHTS

- 1 MPC60 and SP-1200 emulations
- 2 MIDI export
- 3 DAW automation support



NI Maschine

1.5 | free/£529

Not content with the already doted Maschine, NI step in with even more additions. **Declan McGlynn** grooves with version 1.5...

When Maschine launched over a year ago, it was somewhat of a game changer for NI, and the software studio market in general. With a product that mimicked the MPC with the almost endless versatility of a software engine and GUI, NI were able to tackle (and tackle successfully) several niches at once and Maschine was welcome with open arms by the pad-pushing public.

It wasn't without it's faults though and from launch NI's forums have been alive with feature suggestions. The 1.1 update in November last year did much – direct MIDI sequencing

from the hardware to your studio gear, drag-and-drop audio rendering of your patterns and more – but the salivating public never rest and more feature requests have been met v1.5. And once again it's free to all existing Maschine users. Yes!

To avoid gobbling my word count, instead of listing every new feature (and there are a lot) I'll take you straight to the juicy additions. The first thing you'll notice in Maschine 1.5 is the new Sampler tab settings when you load a sound or kit. Instead of the familiar Pitch/Gate page, we're met with a new Voice Settings page, where you can reduce the polyphony of your

sample from 32 voices to one, or bring it below zero to introduce a Legato mode. What's most exciting about this new page though, is the new Engine section. Here, you can replay your sounds via emulations of classic samplers, namely the Akai MPC60 and E-mu SP-1200. These new playback options are fantastic for adding fizz and air to your beats, especially percussion, snares and claps. Have a listen to the examples on the DVD for more. It really comes into it's own as soon as you pitch your sounds up or down, adding a satisfying grit.

Vintage vogue

Unfortunately it's not possible to apply the emulation across a whole Group, only on individual sounds. NI's reasoning behind this is solid though. Firstly, the artifacts in these vintage samplers come from a repitching algorithm and how much a sound is repitched during playback, so it wouldn't be true to apply it to a Group as a whole. Secondly, NI say the engine is quite CPU intensive, so to include an option to 'batch-process' every sound in a Group with the same emulation would eat up your processing. Hopefully, NI can work out a way to apply these engines to every sound without too much CPU sufferance, as they do sound fantastically fizzy.



WHAT IS IT?

Three custom-made EMI compressors in one plug. Providing the warm compressor sound familiar to Abbey Road artists

CONTACT

Who: Abbey Road Plug-ins
Web: abbeyroadplugins.com

HIGHLIGHTS

- 1 Warm, vintage sound
- 2 Super-fuse kicks hard!
- 3 Three models with different sonic characteristics



Abbey Road RS124 Compressors | from \$335

Abbey Road continue to convert their processors to plug-ins. Lucky us, says **Jono Buchanan...**

SPECS

TDM: Pro Tools HD 7.0 or higher

Native: AU, VST or RTAS compatible host application (Pro Tools 7.0 or higher for RTAS version)

PC: XP or Vista on a P4 CPU (or higher)

Mac: OS 10.4 or higher on a PPC or Intel CPU

Despite the recent black cloud hanging over Abbey Road's future, no one can question that its past glories will live

on through countless million-selling albums and songs. In the past couple of years, some of custom-made gear developed through the 1960s and '70s has been converted by Abbey Road's own software development team to allow us DAW owners access to the studio's classic gear. The latest of these is the RS124 compressor. This valve version actually comprises three separate hardware models within a single GUI. So, is its sound still relevant 50 years on?

Dynamic devices

Once installed (after a quick download from Abbey Road Plug-ins' website and

authorisation via iLok), the three models can be accessed by clicking the model number on the left. The three versions feature the same parameters for control but differ in function, and therefore sound, in a number of ways.

The hardware parameters are a 'Balance' button, Recovery/Hold dial (which sets release time), Input Control, an Output Attenuator, a power button and a 'SuperFuse' button, which brings new functionality not found on the original hardware. The Recovery/Hold dial features detented 'positions' that control release speed from Fast (position one) to Slow (six), with an adjacent red 'Hold' position between these integers. These Hold values were added to the original hardware to get around the problems of 'over-compression' on short attack sounds, or to avoid unwanted ambient noises brought up in volume at the end of a

compressed passage of music. If either the attack or release settings of a particular recovery time produced unwanted sounds, the idea was to manually switch the Recovery time to its hold position to 'prepare' it for its relevant value by providing gain reduction without Release. In the plug-in version, the same performance can be achieved with automation

Creamy dynamics

In use, the compressors are wonderful. They sound smooth and warm when set to longer Recovery times but can spank the daylight out of drum and percussive sounds too, particularly when the 'Superfuse' function is activated on the right-hand side. This sets the Attack and Release time to the same value to produce an over-compressed, punchy sound which works fantastically on any percussive material and which completely and magically removes any sense of 'subtle', which these processors otherwise contain by the bucket-load. The three different model numbers contain unique sonic characteristics and are therefore capable of lending themselves to buss compression, as well as to processing individual track components.

They say that classic gear stands the test of time and to learn that the hardware units on which these plug-ins are designed are still in use on a daily basis at Abbey Road provides the proof. These compressors are as capable of doing a wonderful job today as ever they were when John, Paul, George and Ringo were famously negotiating a zebra crossing in North London.

Good compressors do so much more than control dynamics, as they also provide a unique tonal character which can help lift the sounds they process to new heights. If this is what your mixes lack, I strongly recommend you check out the RS124. **FM**

FutureMusic VERDICT



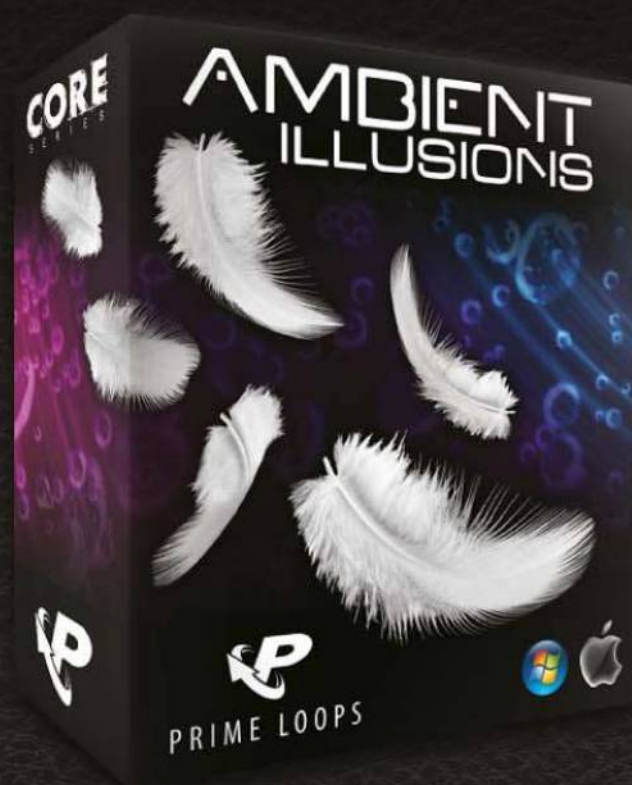
Yet another juicy, smooth and powerful addition to the Abbey Road plug-in range.



PRIME LOOPS

WE'RE IN THE MIX

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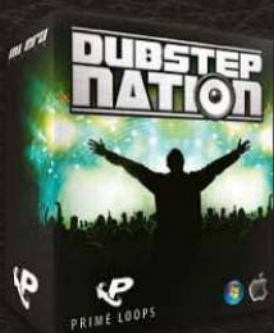
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FutureMusic

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Mini Reviews

The latest musical bits and pieces racked and rated

Stylophone Beatbox | £20

stylophonica.com

As if the humble stylophone wasn't cool enough already, they've gone and made a pimped out, urban beatbox version. It's jammed with lo-fi crusty beats and cheesy sounds that will have you prodding it for hours, including lip-splitting sounds from the UK's very own beatbox champion MC Zan.

As well as the built in speaker and battery operated portability, an audio 3.5 jack output means you can plug it in to a decent set of speakers for

some real lo-fi spitting beatbox action. There's also a neat looping function, an audio input for jamming along to your MP3s and a tempo pitch adjust. You'd have to have a heart of stone to not fall in love with this buzzing little beatbox. *Chris Barker*

9/10



Ortofon 02 Headphones | £105

ortofon-dj.com

Aimed at the DJ market, these styling cans are based around a chassis built by Ultrason, although the drivers themselves are built by Ortofon. As I often say in headphone reviews, plastic headphones and DJing do not mix. But, if you're a not as careless as me when

DJing, then the sound of these cans is actually very nice. Loads of mid make hearing the details in percussion and vocal very easy. There's reversible housing and enough cushioning for comfortable long sessions and best of all, they go extremely loud without distorting.

At around the £100 mark, they are top contenders in this price bracket. Give them a listen before you go with the obvious brands. *Chris Barker*

8/10



Urban Ears Headphones |

£55

urbaneears.com

Sold mostly in the trendy art-meets-highstreet store, Urban Outfitters, these beautiful headphones are

available in a selection of cool pastel shades and the usual matt black and white. They're lovingly crafted with a material finished headband and rope-like lead which give them a drool-worthy finish. Aside for the good looks and trendy retro design, the real unique thing is the ability to chain another set of headphones from a 3.5mm jack output located underneath one of the ear cups. So, one music source can be shared with ease. For the money the sound is pretty decent and for on the go listing and Smartphone/iPod purposes, there aren't too many better looking headphones for this price.

Chris Barker

7/10



Drum Tools 01 | £40

loopmasters.com



This impressive new release from Wave Alchemy contains just under 2,000 individual drum hits in 24-bit and

16-bit WAV format, along with sampler patches in all the most common formats, including Battery, Kontakt, EXS24 and Halion. Although it's clear that the sounds were designed with Minimal Techno and Tech House in mind, most of the samples are versatile enough to fit into any production style.

It's clear that the Wave Alchemy boys have put some serious effort into the creation of *Drum Tools 01* and as a result it comes highly recommended for producers of all Electronic genres.

Daniel Griffiths

9/10

Ambient Glitch Vol 3 | £15

timespace.com



We were big fans of the last volume of Ambient Glitch, so when Producer Loops' latest release arrived in the FM inbox we were keen to give it

a listen. Comprising drums, percussion loops, lo-fi synth riffs, heavily processed bass loops and individual hits, *Ambient Glitch 3* is a weird and wonderful collection of samples which would be great for producers of atmospheric Dubstep, Hip Hop and Jungle.

As we mentioned in our review of volume 2, there's no need to be put off by the title if you don't produce Ambient or Glitch style music – this is an incredibly versatile collection, which should come in handy for producers of any genre. And at that price, you can't argue with that.

Greg Scarth

9/10

Trance Elevation Vol 2 | £35

loopmasters.com



With a whopping 5GB of sample content, this collection of ten construction kits contains just about everything you need to make your own big-stadium Trance anthems.

From synth riffs to slamming drum loops, you'll find everything here. We especially like the fact that variations and filtered versions of the riffs are included, allowing you to develop slowly evolving tracks. MIDI data is also included, making it easy to edit the notes, program variations and play back the patterns using your own synths.

Most parts are supplied as dry versions in addition to their processed form, making this a versatile Trance package at a competitive price.

Greg Scarth

8/10

Producers Loops: Lenny Dee – Hard Electronic | £20

timespace.com



New York Techno legend Lenny Dee joins forces with Producer Loops to present this package of nine Techno and House construction kits

aimed at the harder end of the market. Content is delivered in Acidized WAV, Apple Loops, REX and ReFill formats, totalling 3GB of top quality content.

The samples range from drum loops to vocals and FX, plus just about everything in between. As you'd expect from someone involved in Electronic music since its infancy, production values are top notch.

At times things get pretty aggressive and Industrial, making this an ideal collection for producers of in-your-face House and Techno. **Greg Scarth**

8/10

Disco Gold | £80

timespace.com



Hot off the presses from Zero G comes this collection of over 800 samples grouped into 34 construction kits which offer a contemporary twist on classic

Disco sounds. Don't be fooled into thinking this is just a retro package filled with Saturday Night Fever-esque strings – the content has all been created with modern Dance styles in mind.

As usual for Zero G, the samples are all 24-bit and supplied in just about every format you can imagine, along with patches for all the common software samplers. It's not cheap, but *Disco Gold* contains everything you need to add a pinch of Studio 54 magic to your tracks.

Greg Scarth

9/10

Nic Fanciulli by Global Underground | £20

loopmasters.com



Global Underground's Nic Fanciulli has accomplished much in his career thus far – gracing magazine covers, starting his own Saved label and countless remixes and big name collaborations. Not bad for a lad from Maidstone.

Now, he's sharing some of his success, offering 500MB of bass, drum and musical loops in three bpm (120, 125 and 130) as well as 320 one shots in what he calls 'the perfect audio library'.

Those looking for something that pushes the envelope will need to look elsewhere as this is aimed squarely at the House fan. Bearing that in mind, this collection has a good selection of genre sounds, the one shots being particularly useful. For me the bass and white noise samples are where this pack delivers.

Roger Watson

7/10

PRIME LOOPS

WE'RE IN THE MIX

Prime Loops provide award-winning sound libraries, fresh in-tune with the evolving music scene. We are an extremely passionate team of engineers, sound designers & DJs, hailing from London, UK



AMBIENT ILLUSIONS

Kick back and relax! We are extremely proud to announce this collection of mind-bending ambient & chill-out instrumental loops, mesmerising chord progressions, intricately crafted sound effects and beautifully sculptured wall-of-sound atmospheres.

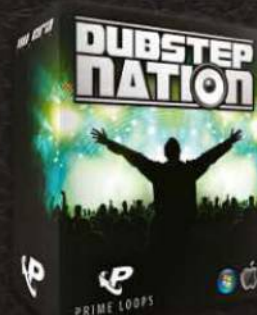
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You may be asking yourself - What the hell are Wonky Beats!? Well, if you're tired of conventional, 4/4 quantized beats, and could do with some big, slammin' tunes with low-slung slow-motion beats... here's the answer: Wonky Beats - A new concept is born!

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DUBSTEP NATION

Ready for the ultimate Dubstep experience? "Dubstep Nation" features over 200 heavyweight Dubstep Drum Loops, Basslines and Synth Hooks, complemented with over 200 pounding One-Shots and 130+ mind-blowing multi-patches for Kontakt, EXS24, NN-XT, Sonar & Halion.

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Prime Loops are proud to announce the arrival of one of their most inspiring, genre-spanning sound suites to date. Inside this royalty free songwriting pack you will find over 200 expertly recorded Grand & Upright Piano Loops from a wide selection of styles, vibes and genres, ranging from 60-190Bpm.

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FutureMusic

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Swissonic MDR-4

Mobile digital audio recorder

24bit, sample rate: 44.1/48kHz, record format: WAV (16/24bit) and MP3 (64/96/224/320kpbs), 5 effects (delay, chorus, room, reverb, pitch shift), built-in speaker, 128 x 64 pixel LED display, 1/8" stereo line in, 1/8" external mic in, built-in stereo mic, 1/8" headphone out, Mini-B type USB connector, powered by PSU or 2 AA size batteries, incl. power supply unit, 1GB SD card and USB cable, dimensions WHD: 6,7 x 2,9 x 10,7cm.

€ 89.-

£ 77.-

o. code 226599

Tascam DR-07

Mobile digital audio recorder

Record and play MP3 (up to 320Kb/s) and WAV files (up to 24bit), 44.1/48kHz, built-in stereo mic, analog automatic level input control, analog limiter, stereo in for external mic, stereo line input, headphone and line-out (3.5mm TRS mini jack), USB 2.0, powered by AA size alkaline or NiMH batteries, incl. 2 GB SD card and windshield.

€ 149.-

£ 130.-

order code 223287

Zoom H2 Bundle

Mobile mp3/WAV recorder

1-point stereo mic design, MS stereo technique, record 360° sound as 2ch or 4ch data, built-in USB interface with audio interface function, WAV 96/48/44.1kHz and MP3 up to 320kpbs VBR, headphone out, uses SD cards (up to 4GB), perfect for interviews, podcasts, meetings and live recordings. Includes USB cable, stand, mic-stand adapter, power supply and 512MB SD card. Bundle includes the Lbone HD660 headphones.

€ 169.-

£ 147.-

order code 137629

Tascam DR-08

Mobile digital recorder

24bit/96kHz, USB 2.0, WAV & MP3, 2 built-in microphones with cardioid characteristic, low-cut, manual and automatic gain control, timer recording, stereo mic/line input, EQ for recording and playback, variable playback speed, noise reduction, built-in speaker, includes 2GB MicroSD card, headphone/line output, powered by 2 AAA batteries/accus or USB, dimensions WHD: 3,7 x 13,7 x 1,5cm, weight: 77g.

€ 189.-

£ 164.-

order code 242479

Tascam DP-02CF Set

Digital 8-channel multitrack recorder

8-track recording, uses CF card, LC display, 2 mic/line ins (1/4" TRS), 1 switchable to guitar in, 2 XLR mic ins with phantom, effect send and stereo return, stereo line out (RCA), SPDIF digital out (optical), headphone out, MIDI out for MIDI timecode or clock, USB2.0 port, int. multieffect processor and reverb processor. Bundle including 2GB Thomann Compact Flash Card.

€ 266.-

£ 231.-

order code 203379

Sony PCM-M10

Portable 24bit/96kHz audio recorder

Built-in stereo microphone, internal speaker, cross-memory recording, internal 4GB flash memory + MicroSD/memory stick micro slot, limiter and low-cut filter, 5s. pre-record buffer, manual or automatic recording level control, USB-2.0 connection, includes power supply, Soundforge Audio Studio LE, cable remote, 2 AA batteries and cable, finish: grey.

€ 325.-

£ 283.-

o. code 238886

Zoom H4 N Bundle

Digital recorder

Perfect for interviews, podcasts, meetings and live recordings. 24bit/96kHz, mp3 up to 320kpbs bitrate, two built-in stereo microphones switchable between 90° and 120°, requires 24V or 48V phantom power, USB port, includes windshield, USB cable, bag and Cubase LE4. Bundle includes 2GB SD Card and the Lbone HD660 stereo headphones.

€ 339.-

£ 290.-

order code 227414

Olympus LS-1 I

Digital recorder

24bit/96kHz, 2 built-in mics, internal 8GB HDD, expandable to 32GB with SDHC Card, up to 23 hours record time, edit functions, PCM/WAV/ WMA/mp3 record & playback, built-in stereo speaker, backlit display, SD/ SDHC slot, USB, headphone out, silver metal housing. Weight: 165g (including batteries), connection for external power supply, includes wireless remote and Steinberg Cubase 4 LE.

€ 339.-

£ 295.-

order code 234496

Zoom R16 Bundle

USB audio interface and DAW controller

16-track recording and 8-tracks recording, 24bit/48kHz PCM recording, internal stereo condenser mic, 8 mic ins, 2 outs, 8 balanced XLR / 1/4" TRS connections, internal effects, Mackie Control emulation via USB, works as USB storage, support for Win XP/Vista and MAC OS, incl. Steinberg Cubase LE4 and 1GB SD card. Bundle incl. the Lbone MLS66 stereo headphones and 4GB SD card.

€ 368.-

£ 320.-

o. code 245233

Korg D3200

Digital multitrack recorder

16-track recording simultaneously, 32-track playback @ 48kHz/44.1kHz (16bit), 12/16 with 24bit, max. 272 tracks (incl. all virtual tracks), format 16/24 bits, MMC, MTC and MIDI CLOCK, session drums drum computer, tempo map, sync track, internal CD recorder, USB 2.0 port, internal signal processing 64bit (max. 69bit), 8 mic preamps and 12 1/4" TRS plugs, 1 Hi-Z input, SPDIF I/O (optical).

€ 933.-

£ 812.-

order code 180671

Mackie MR5

Active nearfield monitor

5.25" woofer (100W), 1" tweeter (50W), frequency response: 60Hz - 20kHz, max. SPL per pair: 113 dB SPL @ 1m, XLR, jack (6.3mm) unbalanced and RCA, magnetically shielded, dimensions WHD: 29,2 x 19,7 x 26,6cm, weight: 6,5kg. Unit price!

€ 139.-

£ 121.-

order code 207239

KRK RP5 RokIt G2

Active studio monitor

75W, 5" + 1" speaker, frequency response: 53Hz - 20kHz, magnetically shielded, dimensions WHD: 27,6 x 18,5 x 25cm, weight: 6,3kg. Unit price!

€ 139.-

£ 121.-

order code 213024

KRK RP8 RokIt G2

8" / 1", 140W.

order code 213090

€ 235.-

£ 204.-

Genelec 8020BPM

Active 2-way studio monitor

Power switch, 66Hz-20kHz (±2.5dB), 105dB SPL peak @ 1m, 95dB SPL @ 1m, 105mm (4") high efficiency bass driver, 19mm (3/4") metal dome tweeter with Directivity Control Waveguide, 3kHz crossover, magnetically shielded, aluminium cabinet, includes wall bracket. Power per channel: 20W (bass), 20W (treble). Dimensions: 22,6 x 15,1 x 14,2mm. Weight: 3,7kg. Unit price!

€ 279.-

£ 243.-

o. code 235038

Adam A7

Special Edition

Finish: black piano lacquer, 6,5" Rohacell / kevlar sandwich woofer, A.R.T. tweeter, frequency range 46Hz to 35kHz, 100W (sin), 150W (rms), XLR and RCA input, dimensions: 18 x 33 x 28cm, weight: 8kg. Unit price.

€ 382.-

£ 332.-

order code 241073

Yamaha HS80M stand bundle

Active 2-way studio monitor package

120W bi-amped bass reflex speaker, 8" woofer, 1" tweeter, 42Hz-20kHz, XLR & jack input, mid EQ, room control, high trim, switchable low cut, magnetically shielded. Bundle includes 2x HS80M and a pair of Millennium BS-500 nearfield stands.

€ 458.-

£ 398.-

o. code 227555

Phonic AM440D

Mixer

4 mono mic/line channels with 3-band EQ and low-cut, 48V phantom power, 4 stereo channels, 1 aux, internal effects processor with 100 presets, 2 track I/O, headphone out, balanced master out, incl. external power supply.

€ 79.-

£ 69.-

o. code 196368

Phonic AM442D

4 stereo, 2 aux.

order code 196389

€ 149.-

£ 130.-

Alesis Multimix 4 USB

4-channel mixer with digital output

16bit, 44.1kHz signal on USB, 4 line level ins, 2 XLR ins with gains and switchable 48V phantom power, high impedance guitar input, 2 channel EQ on mic ins, multicolor LED metering, main and headphone outputs with independent level controls, incl. power supply, dimensions WHD: 15,2 x 19,6 x 5cm, weight: 0,6kg.

€ 88.-

£ 77.-

order code 235244

Mackie 802-VLZ3

8-channel mixer

XDR2 preamps, 2 mono mic/line ins, 2 stereo line ins, 1 mic/stereo line in, 1 stereo aux return, 1 aux send, 2 inserts, 3-band EQ, low cut filter, PFL, 48V phantom power, internal powersupply, incl. software, dimensions WHD: 27,3 x 22,7 x 4,7cm, weight: 2,5kg.

€ 189.-

£ 164.-

order code 209011

Soundcraft EFX 8

8-channel mixing desk

8x mono inputs, 2x stereo inputs, inserts on all channels, 1x FX send, 1x aux send (pre/post), 48V phantom power, solo/mute switch, integrated Lexicon FX with 32 presets, peak LEDs on all channels, integrated power supply, Dimensions: 33 x 9,1 x 36,2cm. Weight: 4,6kg. Optional rackmount available.

€ 268.-

£ 233.-

order code 118879

Yamaha MG I 66cx

16 channel mixer

8x mono mic/line ins (XLR/jack), 2x mic/line ins (XLR/stereo jack), 2x stereo line ins (jack), 3x aux sends, 8x inserts, 3-band EQ with parametric mids, internal compressors per mic channel, SPX FX processor with 16 programs, 180dB high pass filter, high-end mic preamps, 48V phantom power. Dimensions: 47,8 x 10,2 x 48,9cm. Weight: 5,5kg.

€ 359.-

£ 312.-

order code 115511

Alesis Multimix 16 FireWire

16ch. mixer with FireWire interface

8 mic/line ins, 4 balanced stereo line ins, 3-band EQ per channel, 2 aux send/returns, 100 28bit FX programs, headphone out, FireWire interface: 18 ins, 2 outs, 24bit/48kHz, ASIO/WDM drivers for Win XP SP2, Core Audio drivers for Mac OS X, incl. Cubase LE.

€ 398.-

£ 346.-

order code 186079

Mackie 1642 VLZ3

Compact 16-channel mixer

8x mono mic/line channels, 2x mic/line stereo channels, 2x stereo channels, 4x subgroups, 4x aux (2x pre/post switchable), XDR2 mic preamps, 60mm faders, 3-band parametric EQ (mono channels), 4-band EQ (stereo channels), 48V phantom power. Dimensions: 42,5 x 13,1 x 42,1cm (WxDxH). Weight: 8,3kg.

€ 511.-

£ 445.-

order code 112362

Mackie 1604 VLZ3

16-channel mixing desk

16x mono mic/line XLR/jack ins, 4x stereo aux returns, 6x aux sends, 16x channel inserts, 8x direct outs, 3-band EQ with parametric mids, 180dB low cut filter, PFL, XDR mic preamps, 48V phantom power, internal power supply, 4 subgroups, master insert, balanced rack kit outputs, includes rack kit. Dimensions: 44,5 x 12,9 x 44cm (HxWxD).

€ 759.-

£ 660.-

order code 112364

Yamaha 01V96 VCM

Digital mixing console

24bit / 96kHz, 24 analog inputs, 12 Mic inputs, 40 channels expandable, included ADAT interface, 4 effect processors, parametric EQ, incl. Studio Manager Software.

€ 2390.-

£ 2079.-

order code 161112

suitable flightcase

order code 199056

€ 188.-

£ 164.-

Yamaha 1M8 - 32 Set

32-channel mixer

32 mono inputs, direct outs on each channel, 4 stereo line inputs, 4 stereo aux returns, 8 aux sends, 32 inserts, 4-band EQ, low cut filter, 4 matrix, USB audio I/O, weight: 44,5kg, includes Cubase A4 and cable. Bundle includes Yamaha PW8 power supply.

€ 2859.-

£ 2487.-

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Akai LPK 25

USB MIDI controller keyboard
25 mini keys, arpeggiator, sustain button, octave up and down, tap tempo controls, 4 programmable memory banks, includes software editor for Mac and PC, plug-&-play USB connection on Mac and PC, requires no driver installation, dimensions HWD: 2,79 x 34,04 x 9,65cm, weight: 635g.



order code 235491

€ 46.-
£ 40.-

Thomann SP-5500

Stage piano
88 hammer action keys, 559 sounds, 203 styles, 3 user styles, 100 songs, 64-note polyphony, accompaniment control (start/stop, sync start/stop, fill-in A/B, fade), dual mode, split mode, DSP, transpose function, lesson function, pitch bend, headphone out, stereo aux I/O, MIDI I/O, USB port. Finish: Silver Grey



order code 154087

Thomann SPWS-5500

Wooden stand for SP-5500

order code 204071

€ 377.-
£ 328.-

Novation Launchpad

Ableton Live/MIDI controller
Bi-directional communication, 64-button grid with colour-synced status feedback, scene control switchable to control volume, sends, muting and more, up to 6 units may be operated simultaneously, USB bus-powered, large rubber grips, automap-enabled, includes Ableton Live 8 Launchpad version. Weight: 0.76kg

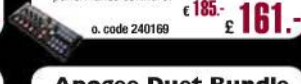


order code 236641

€ 166.-
£ 144.-

Native Instruments Traktor Kontrol X1

USB bus-powered DJ controller
Instant recognition by Traktor, software controlled backlit buttons, fits perfectly alongside a standard club mixer, super-intuitive loop and cue control section, 8 knobs and 8 buttons, push encoders, expandable (connect two X1s to control four decks), incl. Traktor LE, Kore2 Player (incl. selection library) and MIDI templates for controlling other DJ and performance software.



o. code 240169

€ 185.-
£ 161.-

Akai APC 20

Ableton Live USB controller
Exclusive bi-directional communication between the APC 20 and Ableton Live (no mapping required), USB plug-and-play, 40 triggers, 1 rotary control knob, 8 channel faders, 1 bus fader, compatible with PC and Mac, includes Ableton Live Lite Akai APC 20 edition.



order code 243147

€ 196.-
£ 171.-

Alesis IO | 2

USB audio interface
24-Bit, 48kHz, 2 XLR mic inputs with 48V phantom power, 2 balanced jack ins, balanced jack outs, inserts, headphone output with volume control, 4-segment signal/clip LED for each channel, low-latency ASIO 2.0 driver (zero-latency hardware monitoring), 24-Bit S/PDIF I/O, MIDI I/O, USB powered, incl. Steinberg Cubase LE.



order code 177842

€ 109.-
£ 95.-

Cakewalk UA-25 EX CW

USB audio interface
2 channels, 24bit/96kHz AD/DA, mic/guitar/line ins, 48V phantom power, USB powered, integrated limiter and analogue compressor, ground lift, headphone out, MIDI I/O, direct monitoring, compatible with Windows (XP/Vista) and Mac OS X 10.3.9 and higher.



order code 235896

€ 185.-
£ 161.-

M-Audio ProFire 2626

24bit/192kHz FireWire audio interface
26 analog/digital I/O, ideal for project studios, 8 preamps with Octane™ technology, flexible on-board DSP mixer, user-assignable master volume knob, standalone operation, critically acclaimed jitter elimination, Pro Tools M-Powered compatible, 8 analog mic/line jack in with phantom, 2 instrument ins, 8 analog outputs, 2 ADAT I/O's.

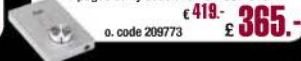


order code 207107

€ 409.-
£ 356.-

Apogee Duet Bundle

FireWire audio interface
24bit/96kHz, 2 channels, FireWire 400 I/O, breakout cable with 2 XLR mic ins, 2 1/4" jack instrument ins, 2 1/4" jack monitor outs, multi-segment LED display input and output levels, multi-function controller knob, headphone out, Maestro software for advanced control and low latency mixing, compatible with any Core Audio compliant audio application, compatible with Mac OS X Core Audio. Bundle incl. original Apogee carry case and 2GB USB stick.



o. code 209773

€ 419.-
£ 365.-

Focussrite Saffire PRO 40

24bit/96kHz FireWire audio interface
20 I/Os, 8 mic preamps, 8 analog I/Os (2 mic/line/instr. combo XLR, 6 mic/line combo XLR), ADAT I/O, 2 S/PDIF I/Os, 2 monitor outs, monitor switch, 2 separate headphone buses, MIDI I/O, zero-latency DSP mixer/router, incl. plugin suite, 19", 1RU, internal power supply, weight: 3kg.



order code 219725

€ 422.-
£ 367.-

MOTU Ultralite MkIII Hybrid

FireWire and USB audio interface
24bit/192kHz, 2 mic/instrument ins, 6 bal. ins and 10 outs (1/4" TRS), 48V phantom power, S/PDIF I/O, headphone out, CueMix FX, internal DSP, LCD display, suitable for use as a standalone mixer, compatible with Windows and Mac, supports WDM, ASIO and Core Audio, incl. AudioDesk software for Mac.



order code 239141

€ 468.-
£ 407.-

SSL Duende Mini Musicians Pack

Compact DSP powered SSL processing
Contains Duende Mini + stereo bus compressor, drum strip and vocal strip, up to 16 channels of console-grade SSL EQ and dynamics processing, powerful DSP engine, single FireWire connection, expandable with optional SSL plug-ins for the Duende platform.



order code 245121

€ 469.-
£ 408.-

RME Fireface UC

USB audio interface
36 channels, 24bit/192kHz AD/DA converter, 48V phantom power, 18x simultaneous I/O, instrument input, 8x analog I/O, ADAT I/O, SPDIF I/O, 2x MIDI I/O, WordClock, intelligent clock control, SyncCheck, SyncAlign, SteadyClock, DiGiCheck and TotalMix. Dimensions: 9.5"/1U



order code 229395

€ 822.-
£ 715.-

Digidesign Digi 003 Rack Factory

24bit/96kHz FireWire interface
8x analog I/O, 4x prof. mic preamps, 48V phantom power, 8-channel ADAT optical I/O or 2-ch. S/PDIF optical I/O, 1x MIDI in, 2x MIDI out, BNC WordClock I/O, dedicated studio monitor out, alt control room out, alt source in for external device monitoring, dual headphone outs. Incl. Pro Tools LE Factory bug-in bundle and Pro Tools Ignition Pack 2.



order code 111200

€ 877.-
£ 763.-

M-Audio ProjectMix I/O Pro Tools Bundle

FireWire audio interface
8x touch sensitive 100mm motorized faders, 8x mic/line ins plus 1x ADAT I/O, supports Mackie Control, Logic Control and Mackie HUI. Compatible with Cubase, Logic, Sonar and Pro Tools. Includes M-Audio Pro Tools M-Powered 7 and Wizzoo Music Production with Pro Tools 7.



order code 138001

€ 1085.-
£ 944.-

the t.meter MPAAL

Multi-purpose audio assistant
31-band ISO spectrum analyzer, frequency range 20Hz to 20kHz, sound level meter, hand-held with integrated microphone, line level meter (dBu, dBV, Volts), phase checker, RS232 connection, includes CD-ROM.



order code 182968

€ 188.-
£ 164.-

StudioProjects VTBI

Tube preamp
Incorporating true class A/B switching, the VTBI is a totally discrete circuit, the tube drive is a variable drive to a 12AX7, that allows the user to blend as little, or as much of the tube drive they want, 48V phantom power, balanced outputs on XLR and 1/4",

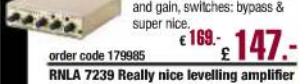


order code 183260

€ 138.-
£ 120.-

FMR Audio RNC 1773

Really nice compressor
Stereo compressor with two modes: normal for "effective" compression and super nice for transparent compression, controls: threshold, ratio, attack, release and gain, switches: bypass & super nice.



order code 179985

€ 169.-
£ 147.-

RNLA 7239 Really nice levelling amplifier
10Hz - 100kHz 0.5dB @ 0dBu, clip point: +22.5dBu @ 3% THD.

order code 190166

€ 205.-
£ 178.-

SPL GoldMike 9844

2-channel valve preamp
Discrete Class A solid state, 48V phantom power, phase reverse, pad function, flair presence enhancement, very clear and warm sound. Dimensions: 19"/2U



order code 123370

€ 425.-
£ 370.-

TL Audio Ebony A4

Discrete class A 16:2 summing mixer
Dual triode ECC83 tube stage in master section, variable drive control, ability to switch tube in and out of circuit path, 16 balanced ins (TRS/D-Sub), 16 individual pan controls, switchable ins (+/-10), balanced inserts on master bus, balanced outs, analogue VU metering with peak LEDs, sleek design and smooth precise sound, dimensions: 19"/2U



order code 220634

€ 839.-
£ 730.-

the t.bone Micscreen Mini

Portable absorber and diffuser
With microphone clamp, reduces the transmission of unwanted room reflections, echoes and ambient noises, recommended for vocals, instruments, live and studio applications, quick and easy mounting on nearly every standard microphone stand.



order code 223803

€ 66.-
£ 57.-

the t.bone Micscreen

Portable absorber/diffuser
Positioned behind any microphone, reduces the transmission of unwanted room reflections, echoes and ambient noises, recommended for vocals, instruments, live and studio applications, quick and easy mounting on nearly every standard microphone stand.



order code 209023

€ 83.-
£ 81.-

Rode NTG-2

Directional condenser microphone
Broadcast quality, condenser transducer, low-noise circuitry, low handling noise, phantom powered (44 - 52V) or battery powered (1.5V), frequency range: 20Hz - 20kHz, 131dB SPL max., ideal for film/TV/video, includes stand mount, windshield and zip pouch, weight: 161g.

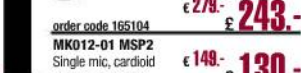


order code 179393

€ 189.-
£ 164.-

Oktava MK012-01 MSP2 Matched Pair

Matched stereo set
2 small diaphragm condenser microphones, cardioid, frequency range: 20Hz - 20kHz, finish: silver, delivered in a wooden box, made in Russia!



order code 165104

€ 279.-
£ 243.-

MK012-01 MSP2
Single mic, cardioid

order code 165103

€ 149.-
£ 130.-

Rode NT5-MP

Condenser microphone stereo bundle
2 matched small diaphragm condenser microphones, 0.5" gold sputtered capsule, cardioid, 20Hz-20kHz, excellent for drum overheads, acoustic guitar and stereo live recordings. Including plastic case, microphone clips and wind screens.



order code 154595

€ 285.-
£ 248.-

SE Electronics SE 2000

Large diaphragm studio microphone
Cardioid pattern capacitor, gold sputtered 1" mylar diaphragm, frequency response: 20Hz - 20kHz, sensitivity: >16mV/Pa -36" ±2dB, impedance: <200Ω, output noise: <17dB typical (A weighted), THD: <0.5% at 125dB SPL, phantom power 48V ±4V, incl. wooden case and shockmount.



order code 223700

€ 88.-
£ 77.-

the t.bone SCI 100 Set

Studio large diaphragm microphone
polar patterns cardioid, figure-8 & omni, low cut switch and -10dB pad, frequency range: 20Hz to 20kHz, incl. aluminium case and shockmount. Bundle including the t.bone MS180 pop shield.



order code 203865

€ 139.-
£ 121.-

Rode NT1-A Complete Vocal Recording Solution

Large diaphragm microphone
20Hz-20kHz, 100Ω impedance, 132dB dynamic range, 137dB max SPL. Includes SM6 deluxe shockmount, 6m cable and Peter Freeman 'Studio Secrets' tutorial DVD.



order code 235937

€ 179.-
£ 156.-

Shure SM 7 B

Studio microphone
Dynamic studio microphone with cardioid polar pattern, 50Hz-20kHz, bass rolloff switch, mid-boost switch, 150Ω, shielded against broadband interference, fixed stand adapter, XLR connector, includes windscreen.



order code 129929

€ 398.-
£ 346.-

Neumann TLM 103 Studio Set

Studio microphone
Large diaphragm cardioid microphone, pressure gradient transducer with one-diaphragm capsule, transformerless circuitry, extremely low noise: 7dBa, high-quality professional equipment for limited budgets, finish: silver, incl. shockmount, delivered in a box.



order code 174067

€ 888.-
£ 773.-

Pioneer CDJ-400

MP3 single CD player
With ID3 tag & CD text, MIDI controlled via USB, jog wheel, scratch jog FX, ±6/10/16% pitch control, master tempo control, reverse play function, shock-proof memory, hot loop & beat loop for 10 cue/loop points per disc (maximum).



order code 139321

€ 585.-
£ 509.-

Pioneer CDJ-400 K
black, blue LED version

order code 241830

€ 619.-
£ 539.-

Vestax VCI-300

DJ MIDI controller
24bit, 4-channel soundcard (2x I/O), 1 stereo input, 1 microphone input, 2 stereo outputs (master/monitor), USB, 2 aux inputs, 1 headphone out, 2 master outs, dimensions WHD: 41 x 2.8 x 27.5cm, weight: 3.2kg, includes Itch software, power supply optional.



order code 212112

€ 659.-
£ 573.-

Vestax VCI-300 White
White Edition

order code 236225

€ 659.-
£ 573.-

Pioneer CDJ-2000

Professional multiformat single CD player
Plays Audio CD, CD-R, CD-RW, SD, DVD-R, DVD-RW, USB sources and SD cards, includes Rekordbox software, quantized beat loop, compatible with MP3, AAC, WAV, AIFF and Tonium Pacemaker data, 24bit/48kHz soundcard, HID and MIDI controllable from USB, frequency range: 4Hz - 20kHz, dim.: 32 x 40,6 x 10,7cm, weight 3.9kg.

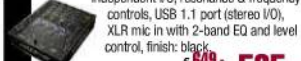


order code 238585

€ 1599.-
£ 1391.-

Allen & Heath XONE:42

4-channel DJ mixer
2 turnable ins (RCA phono/RIAA), 2 line ins, X-FX send, 3-band EQ, 60dB total-kill EQ on all channels, internal switchable PSU, 2 headphone outs (1/4" and 3.5mm), VCA crossfader with curve control, VCF filter with independent I/O, resonance & frequency controls, USB 1.1 port (stereo I/O), XLR mic in with 2-band EQ and level control, finish: black.



o. code 231622

€ 649.-
£ 565.-

Pioneer DJM-700

Professional 4-channel DJ club mixer
Crossfader assignment, fader start, 3-band EQ (-26dB to +6dB), talk over (-20dB), peak level meter, rotary pots for master output. Dimensions: 32 x 38.1 x 10.8cm (WxHxD). Weight: 7.5kg.



Finish: Black

order code 118996

Finish: Silver

order code 119965

€ 811.-
£ 706.-

Q&A

Our panel of experts answer your music-making questions, from hardware issues to software ideas, with tips and tricks along the way



Pad Control

Saitara Software's AC-7 Pro is an iPad application that follows the Mackie Control protocol

Logic control from iPad?

Stephen Gates asks:

Q Now that Apple's iPad is available in the US, I was wondering if you had any more details on how viable it is for me to use it as a controller for Logic Pro? Is there an app that will enable me to do this?

Also, can you foresee any problems with using an iPad as a wireless DAW controller? It seems to me that it'll be a cost-effective option, but I'm guessing that there may be some potential drawbacks that I haven't yet considered.

Mark Gyver replies:

A See page 10 for more on the iPad. For many, the iPad's potential as a controller for existing DAWs has actually been more interesting than its use as a standalone music-making device, so it wasn't really surprising to see developers announcing control apps before the device was even here!

The first one I saw was midipad (midipad.de), which may well be available by the time you read this. It

sports several different views – these replicate a mixer, enable you to launch clips and mirror a two-deck DJing layout – and seems fairly straightforward. That said, although the developers don't explicitly say so, it looks like it could be geared more towards Ableton Live than anything else. A more serious-looking solution is Saitara Software's AC-7 Pro (saitarasoftware.com). This appears to be based on the Mackie Control protocol and gives you a tasteful mixer-style interface to work with (there's a jog wheel, too). At launch (again, it may be available by the time you read this) it'll run with Logic Pro, Digital Performer, Pro Tools and other software that supports the Mackie Control standard.

The advantage of mixing using an app like this is that, because of the iPad's multi-touch display, you'll be able to grab multiple faders at once. That said, you'll get the same advantage from using any real mixing controller – the Mackie Control, for example – and this will give you the satisfying feel of real faders, too.

What's more, there are still some who

THE EXPERTS

Mark Gyver
computer
music expert



With 15 years of music production experience, Mark knows everything (and more) about the current and classic software market.

Doug Kraul
technology author



Doug Kraul is an electronics and computer industry innovator, who has designed analogue modular synthesizers and MIDI devices.

Dan Goldman
artist/producer



Aka JD73, Dan is a session keyboardist, producer and remixer, specialising in vintage gear, mixing and production techniques.

To send in your queries you can email us at futuremusic@futurenet.co.uk and we'll pass them on to the relevant expert. Or write to **Future Music Q&A, 30 Monmouth Street, Bath BA1 2BW**

doubt that the iPad's capacitive touchscreen will be up to the demands of music makers, whose hands may get hot and sweaty – moisture doesn't agree with capacitive screens, apparently – particularly in a live situation. JazzMutant's Lemur, for example, uses digital resistive technology to negate this problem. This is something that will have to be tested, though, and if you're working in the studio rather than on stage, might not be much of an issue anyway.

So I guess what I'm saying is that, yes, you will be able to use the iPad as a wireless Logic controller (again, it remains to be seen how reliably the wireless connection will work) but I'd hesitate before buying one specifically for that purpose. If you're getting one anyway, download the apps and see how you go (they're unlikely to be too expensive which is a bonus) – otherwise, wait and see how others get on before making the investment.

When I'm 64-bit

Kurt Slater asks:

Q I have a late-2009 model iMac running OS X Snow Leopard that I bought specifically to run Logic Pro as a 64-bit application.

I have gone ahead and upgraded to Logic 9.1 so I should be all set, right? The problem is that Logic is still reporting that it is running in 32-bit mode. Is this because I am still using my 32-bit plug-ins?

Doug Kraul replies:

A Logic, and many other 64-bit capable applications have the option to run either as 32-bit or 64-bit on Snow Leopard.



Notice that the 'Open in 32-bit mode' option is checked. To run in 64-bit mode, uncheck this and the next time you start Logic it will run as a full 64-bit application. Should you find the need to use it in 32-bit mode repeat these steps but instead turn 'Open in 32-bit mode' on

Workstation or Laptop?

Ian Davis asks:

Q I have a question regarding workstations (such as the Korg M3, Yamaha Motif, Roland Fantom etc). Basically, I'm starting to think there's not a lot of point getting one of these as you can do everything and more in a computer. Is there any advantage to having a workstation as I'm thinking a computer is more flexible in the long term?

Dan Goldman replies:

A Good question! Well my money is currently still on the workstations for a number of reasons. First off, in a workstation everything is in

one neat package (sounds, sequencing, sampling) and everything including the screen, processor, effects, interface and keyboard has already been optimised to control the specific onboard sounds by that particular manufacture.

With computers, you can buy plug-in instruments that cover a similar base of sounds to workstations but you'll need a separate interface, cabling and a very reliable and clean system to get the best out of the computer, plus the computer system is inherently more fragile and harder to set up for live use. Workstations are generally built to last (and as a rule

hold their value well too) have all the relevant interfacing built in, are quick to setup and though they are less flexible than a computer in terms of upgradeability, sequencer depth and sheer processing power. A computer based system is only limited by memory/processor constraints and thus the number of plug-ins/sounds you can squeeze in. The fact workstations focus on getting the most from a specific sound/feature set means you can really get to know a workstation well and know how to really get the best from it in both a live and studio situation. However, as I've already said, you can do a lot

more with a computer in terms of sequencing and manipulation of audio etc, it's just often fewer features and a focused operating system/interface/sound set is good for productivity. Having your eyes fixed to a computer screen is not always the best thing for creativity either.

Another option to consider (that's the best of both worlds) is to choose one of the Open Labs or Lionstracs workstations that expand on the concept of boards such as the M3, Motif and Phantom but basically have a PC/PC operating system under the hood which should future-proof things for a whole lot longer than a normal workstation (as workstation sound-sets can date quickly). For me, these represent the real future of the workstation and I hope we'll be seeing a whole lot more of these designs.

Workstations cost almost the same as a laptop and controller – so which is better?

Logic Pro currently chooses 32-bit operation as its default even when it is run on a 64-bit compatible setup. Fortunately there is a simple procedure to tell Logic Pro that you prefer 64-bit operation.

Locate, then select, the Logic Pro application file in Finder. Choose 'Get Info' from the file menu (a handy shortcut is hitting the 'cmd+I' key combination). Untick 'Open in 32-bit mode' and next time you start Logic it should run in 64-bit. Of course, if you want to return to 32-bit mode for any reason, just open this dialogue box again and tick the box.

Is a subwoofer the right choice for my room?

Alec Davies asks:

Q My home studio is in a rather small room, around three meters by four meters. I do a lot of Dance mixes so I need to be able to hear low bass. My current monitors are on the small side so I was wondering if adding a subwoofer would help?

Doug Kraul replies:

A As a general rule it is very difficult to obtain suitable low end monitoring in a small acoustic space. Each room has various 'modes' that can dramatically enhance or attenuate certain frequencies, with the most noticeable impact on the bass and low bass regions. The smaller the dimensions, the more likely it will negatively impact your monitoring space.

You can apply corrective equalisation to reduce excess bass. However equalisation or any other method of 'adding more bass' will not help with the room mode 'nulls' – frequencies that are severely attenuated by the room acoustics. This means that a subwoofer may not improve your low end monitoring, and it might make matters worse!

Room treatment is a very important step before investing in a subwoofer or larger monitors. Acquire some quality bass trap acoustic treatments (corner models are usually the most effective). These may seem

Sub Focus

A properly-installed and located subwoofer can dramatically extend your monitoring low-end. However if your room is not suitable to reproduce these low frequencies it might all be for naught

a bit pricey but they are necessary if you are to have a chance at getting decent low-end monitoring.

However, even after applying room treatment your room may still be unsuitable for very low bass work. Should that happen, you'd have to abandon the subwoofer approach and use a different method, like checking

your mixes on a pair of quality headphones that you trust.

Keytar control

Andrew Ferguson asks:

Q Having been too ashamed to use a keytar on stage for many years now (even though I've always



DIY Record Effects

Rebecca Quale asks:

Q I am new to Propellerhead's Record and Reason package, and in general, I like it a lot. One disappointment though is that there do not seem to be very many interesting effects plug-ins. I'd like more filtering and delay options, and some effects that use a step sequencer. Any ideas or alternatives?

Doug Kraul answers:

A Most sequencers are somewhat 'plug-in-centric' in that you often have multiple same-type plug-ins to provide variety.

Thus plug-in diversity is important. It's not unusual to find your plug-in folder chock-full of different equalisers, compressors, delays, filters, choruses, and

so on. Record and Reason have a different philosophy, one where diversity is achieved by connecting and combining a few, more generic effects (and instruments) in interesting ways. This is similar to how one works in a traditional hardware oriented studio: you learn to achieve all manner of interesting sounds and treatments by combining

general purpose elements. Record and Reason together have a limited number of basic effects so it is imperative that you become comfortable with 'behind the rack' routing. The Combinator is a key ingredient: it reduces complexity, clutter, and packages your creations into a single reusable component.

In a way, the Zen of using Record (and Reason) is mastering the art of wiring up your own DIY effects inside a Combinator. If you have not yet learned 'Combinator basics', then place that at the top of your to-do list!

You can accomplish a lot with the Combinator and Record's basic effects. However to take your projects to the next level learn how to also incorporate bits from the synthesizers and pattern sequencer devices. Something like Thor offers a wealth of new elements.

Record comes with numerous Combinator effects so you may well find something you like there. However to become a true master, it's best to learn how to do this yourself, so let's examine how to make a 'comb filtering' send effect.



1 We'll start with a single instrument track project. Add a Combinator, which will also add an unneeded track we will remove. If you already have an empty Combinator template, you can save a few steps by using Create Send FX and choosing that instead.



2 Select the just created mix channel device, then delete it. Flip the rack around and wire up the Combinator: FX Send 1 to the Combinator inputs, Combinator outputs to FX Return 1. Add a Thor inside the Combinator and connect its audio I/O as indicated.



3 Initialise Thor and disable unneeded sections. Select 'Comb Filter' for filter 3. Connect Thor's 'Audio In 1' to 'Filter 3 Left In'. A second routing from 'LFO2' to 'Filter 3 Frequency' provides the modulation needed for an automatic sweep effect.



4 You can use this as-is but adjustments and tweaks are made directly to Thor controls. If you plan to reuse this effect, then it's best to add some finishing touches. Use Combinator modulation routing like these to finish your DIY comb filter effect!

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secretly wanted to) I've decided that now is the time to take the plunge. The '80s revival seems to have made it socially acceptable, after all.

The only trouble is cash – specifically, a lack of it. There's no way I can afford a Roland AX-Synth, or even their new AX-09, and I don't particularly need built-in sounds or fancy control options. All I need is a MIDI keyboard that's small, light, looks OK... and can be strapped on!

Ideally, I'd like it to work with MIDI wirelessly too, but if that's going to be a lot more expensive, I won't bother. I was wondering if there are any budget MIDI-only options out there or am I never going to realise my dream?!

Mark Gyver replies:

A The keytar is most definitely back, but as you say, even Roland's more affordable AX-09 isn't exactly cheap. If you just want a wearable controller, though, you don't have to spend so much – I'd recommend that you look at Behringer's U-Control UMA25S, which can be picked up for just £79.

It's only got 25 keys and doesn't have the nicest feeling keyboard, but it comes in a striking red finish (so will stand out on stage) and – most importantly – has hooks for a strap. In fact, you even get a strap in the box, and the UMA25S's performance credentials (and bargain price) are



Strap On

It might not look exactly like a keytar, but the Behringer UMA25S is certainly a very affordable MIDI keyboard controller that you can 'strap on'.

further enhanced by the inclusion of a gig bag and (run for your lives) headphone and boom mic setup.

If you want to add wireless capabilities, one of the cheaper solutions is M-Audio's MidAir

package, which you can get for around £80. It's only a 1x1 interface and has a lower range than more expensive systems (up to 30 feet) but assuming you're going to have a laptop on stage to plug the receiver unit into, this shouldn't be a problem.



Mixcraft 5

Acoustica's Mixcraft 5 takes several design cues from Apple's GarageBand.

Future-proof backups

Sinéad Simpson asks:

Q I'm pretty good with backing things up to my current USB 2.0 hard drive, but I'm worried that in the future I won't be able to open my data as new interface systems come to market. What are your thoughts on how to future-proof backups?

Dan Goldman replies:

A Thankfully, most computers over the last few years have backward compatible interfacing and so we can still use most of our older peripherals with newer computers and vice versa.

However, there is no cast iron guarantee that everything is always going to be compatible, so to give yourself the best chance of being able to open all your old songs/data in the future, it's worth backing up your most important stuff onto as many different media types as possible.

These types should include CDs, DVDs, FireWire or USB drives, USB sticks and also making audio backups of your mix downs or stems onto DATs, CD recorders and anything else you can think of. This will increase your chances of being able to open older projects in the future.

Generally, CDs and DVDs seem to have a good life expectancy but using the best quality media and storing them sensibly will give you the best chance of being able to access your data down the line. Also, always verify your DVD backups when burning, plus make more than one copy and put them in different places.

Grim Reaper

Kai Jameson asks:

Q After taking some advice from forums, I downloaded and have been trying Cockos's Reaper. I was told that it's probably the best value DAW out there at the moment, and that it's pretty user-friendly.

However, having spent some time with it, I have to

say that I'm just not getting on with it. There's nothing specifically wrong that I can put my finger on, but I'm a songwriter who wants to get his music recorded quickly, and Reaper just isn't enabling me to do this. This being the case, could you suggest an alternative PC program that's similarly affordable but a bit easier?

Mark Gyver replies:

A Reaper is great – and amazingly spec'd for its price – but it isn't for everyone.

This isn't a criticism of Cockos's DAW – I haven't yet heard of any piece of music production software that everybody likes. If you persevere with Reaper, you may find that its workflow becomes second nature to you, but given that you haven't yet spent any money on it (I assume), my

advice is to give Acoustica's Mixcraft 5 a go as well.

This latest version of the software is the closest you'll get to GarageBand on a PC, and actually betters Apple's application in some respects. Most importantly, it feels more musical than it does technical, and as a songwriter, that's something you're likely to appreciate and it should help you maintain a solid workflow.

Mixcraft 5 costs \$75, and you can download a demo from acoustica.com

Q Dave North asks: I'm new to Logic 9 and one of the main reasons I purchased it is the 'Flex' function. I do a lot of recording of live instruments but I'm having inexplicable difficulty quantising even a mono drum part. Help!

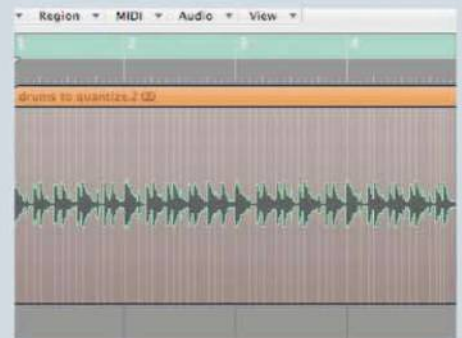
A Dan Goldman replies: Well as you already know the Flex functions in Logic 9 are very powerful and can tighten up any out of time or slightly off performances if nursed carefully. As the process is non-destructive, it's easy to compare the newly timed result with the original performance without destroying the original audio permanently. This six-step walkthrough that should help you out.



1 Open up Logic and select the part you want to quantise in the arrange window. First the important bit: You've got to set your tempo to match this rough audio! Make sure the piece of audio is looping in time with the Logic's tempo (use Logic's BPM counter plug-in if you're unsure of the tempo). This lets Logic know what's going on and is an essential starting point before you try snapping any beats in Logic's quantise grid. Now you can switch on Flex by clicking the Flex button on the toolbar.



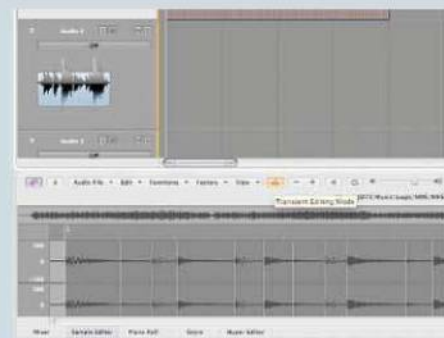
2 Once Flex is selected, a dropdown tab appears on each arrange panel, where the type of Flex algorithm can be selected. There are several types for different types of material available under this tab. I've selected 'Rhythmic' as the material to be treated is a drum part, but this algorithm will work for most parts that are rhythmically punchy.



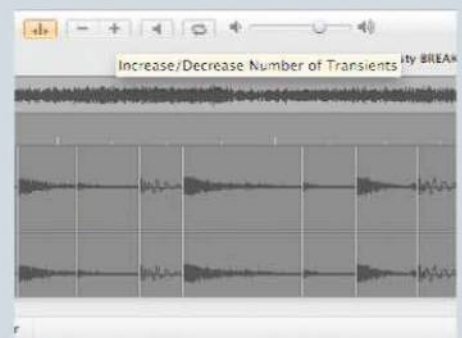
3 Once the Flex algorithm is selected, Logic analyses the audio file, looking for all the peaks in the audio waveform and drawing in markers at each of these peaks to use as a reference for quantising. Now that the file is analysed you can at last change to the tempo of your track to whatever you desire. I've sped up the tempo and Logic has turned the waveform green to signal that it's time-compressed the audio to fit the new quicker tempo. Meanwhile waves turn orange to signify if they've been expanded, ie. if you were to slow the track down.



4 Logic already has very powerful MIDI quantising features and these are all available to treat audio once it's analysed. Here I want to snap the drum audio to a straight 16th grid. Go to the quantise box in the top left corner of the inspector window and select 1/16 note from the quantise options. Now all the audio will be in time with the 16th grid.



5 If you find that Logic hasn't caught all the transients you want to be quantised, then you can either add more markers manually in the arrange window or (as I prefer) you can open up the waveform in the sample editor and add/take out flex markers as you require. To see where the flex markers are in the sample editor click the Flex button (which lights orange once clicked).



6 Now you can add or remove Flex markers as you need. Quite often you'll find that Logic will put far too many markers in when trying to pull crash cymbals into time (especially when they are mixed with other audio) so it's worth removing these unwanted markers in the sample editor to make for a cleaner result. This can be done using the minus button (or plus button if you want to add markers). Alternatively you can remove the markers manually just by double clicking on them. **FM**

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Demo Of The Month



SELECTED KIT

Hardware

- > Korg Karma
- > Apple Mac G5
- > M-Audio FireWire 410
- > Alesis M1 monitors
- > Rokit 10s subwoofer
- > Mackie 1202 VLZ

Software

- > Logic 7.1.1
- > Trilogy, Omnisphere, Atmosphere, Stylus RMX
- > NI Reaktor 5
- > FXpansion Guru

FAVOURITE GEAR

> "Shlavens sticks with his old favourite, the Korg Karma, indispensable in his opinion when it comes to quality acoustic, brass and orchestral sounds. D-Lav won't leave home without Guru as it lets him make his drum grooves sound more human."



Amplexus Shlavens & D-Lav

Contact: soundcloud.com/djdlav



We love the raw hard 'brickwall' quality of this one. There's so much variety of sound too and it all comes at you in a cascade of interwoven beats, breaks and random, blink-and-you'll-miss-it sound snippets.

But who's who's that on vocals? Is it a dialogue sample? "The vocals are from a friend of ours who we chose because of his ability to do a Scottish accent. We let him improvise a preacher-like tirade about pornography and drugs and then we chopped it up until it said something we thought was

interesting." Smart, and giving your track a hook has certainly lifted it juuuust above the excellent crop of Electro House on display this month.

It's a deceptive one as it pretty much takes until 2:30 to find it's pace. While we love an extended, smart intro, it might be clever to drop some of the chunky and funky synth sounds from later in the track into that 'early doors' opener? Once the track is buzzing along (from 3:30 onwards) it's almost impossible to keep pace with the sounds being thrown around. And we mean that in a good way!

Great treatments, careful programming and a superb production.

The Artist



Name:
Michael Laven and
David Laven
Where:
Boston, USA
This track: "It's an

intentionally busy and slightly experimental musical experience built around a highly satirical vocal. We wanted to write a track that had about 10-20 small, short and separate elements working together to create a complete musical phrase on top of a simple and fun drum groove. 'Amplexus' is the scientific term for how frogs reproduce."

Which bit of this track are you most proud of?

"The best part though is the kick drum which is a carefully balanced and EQ'd layer of three separate sounds. There's a sub-heavy kick, a rim shot, and a snare drum. We used this model to separate the sonic elements of a kick – the low end, the attack, etc – with the goal of having more precise control over the levels of each element."

If we were to give you £5,000 for gear what would you spend it on?

"Gearwise we'd love a Moog Voyager, Mac Pro with Logic 9, and something with tubes in it for our current projects. We're working on several original productions for 2011."

The Best of the Rest...

Slow Move Sami Tuomi

soundcloud.com/samituomi



"I'm Sami Tuomi and I live in Southern Finland, city of Järvenpää." Pleased to meet you. Great track. How would

you describe it? "I feel it's quite positive and 'airy'. My favourite bits are the soft and wide sound and electrical clicks and noises. Also I'm very pleased with all the lon sounds which I made myself. Only the bass drum and claps are made with Halion and modified from the samples."

Alesis Ion, y'say? "It's my favourite bit of gear," says Sami.

"That said if you gave me this £5,000 you're always promising I'd go get a new Mac with some cool plug-ins and some new monitors."

So what are you using right now? "I use a PC with Cubase SX3. Then

there's my Alesis Ion, Behringer mixer, Halion 3 and IK Multimedia's T-Racks 3."

Anguish Z

soundcloud.com/djz



"My artist name is simply Z. I am on Beatport under that but [laughs] you can't search just Z so you can't find me! I

really want to stay with Z because its super catchy and my real name is ZZealleauss-Eli J. Archuleta and I'm in Santa Fe, New Mexico." Wow. So far so impressive.

"When I make tracks I try to put a lot of emotion into them. So I guess I could describe *Anguish* as a song of emotion. A song from my inner soul. I like how the kick is primarily sub bass and there is always a sub bass behind the track that's hooking. I did it by

layering kicks and using an auto filter and EQ to tune the kicks to be all the bass frequencies.

"I really want a Moog Voyager rack and a Moog Little Phatty. So there goes half the budget! I'd also get some KRK VXT8 monitors as I make my music on Logitech computer speakers! Ha! I'd also buy an Analog Compressor."

So what do you use right now? "You'd be surprised. I have no hardware. Software-wise I use Ableton Suite 8 with Gladiator, Nexus, Toxic Biohazard, and Sylenth synths. I also have Deadmau5's sample pack which is great. I also have all the Vengeance packs too." Just don't lean on those Vengeance packs too heavily, eh?

Itchy Feet

Zarkov (featuring Horrorshow)

soundcloud.com/zarkov



"I'm Raphael Dixon. Originally from Sydney, Australia but have been travelling

South America for three months. Right now I am living in Toronto,

Canada for a couple of years."

We like your Hip Hop. "It's Hip Hop, but with an ambient kind of Dubstep feel. There's also Jazz piano in there, and a tempo change to a kind of half-step, so it's hard to be specific about genre! It has about 15 different genre tags on SoundCloud..."

"When I was putting all the saw waves together for the big, energetic part before the piano drop, I wasn't looking to make it sound so organ like, but when it did, I really thought it worked and I am very happy with it."

"I'm only a recent Ableton convert, but it has dramatically improved my workflow and made making music easier and more enjoyable. I'm also a recent Alchemy purchaser too, and it has become my favourite soft synth by far!"

House Party

2K

myspace.com/2kvodka



"This track was my attempt at a party song," says it's maker Evan Grealley from

Galway, Ireland. "I took some



SELECTED KIT

Hardware

- > Apple iMac 24"
- > Korg microKorg
- > Korg Kaoss pad KP3
- > Korg Kaossilator
- > KRK RokIt 5 monitors
- > Akai APC40

Software

- > Ableton Live 8
- > Ploque Chipsounds
- > Sugar Bytes Effectrix

FAVOURITE GEAR

- > "My Ableton Live and APC40 combo. With this – and my computer always on standby – I can sketch out ideas as soon as they come."

Blind of the Mind

Roembach

Contact: roembach@hotmail.com

People just call me Roembach – pronounced 'Rumba' – but my real name is Benjamin Roembach-Clark." Slick.

"This track is a minimal Techno track that builds and strips off layers to provide a feel of constant progression. That's my favourite part. The progression and the way the lo-fi mallet synth works with the delay. I cracked that one in one take."

For us, it's the lovely, modulated chords, speeding up and slowing down irrespective of the tempo of the song but always there

and tying it all together. And we're suckers for some subtly distorted bleeps and clangs too!

"If I got £5,000 I'd spend it on a nice MacBook Pro as I am currently dragging a 24" iMac everywhere I play. I would also love to get my hands on a monome and Max for Live as right now I am working on perfecting my live set within Ableton Live. Just trying to find the best way to present my tracks. Using the APC to control loops is great, but I would like to do my beat sequencing live."

Hot Pick



SELECTED KIT

Hardware

- > Fender Stratocaster
- > Akai MPC1000
- > Roland Human Rhythm Composer R8
- > Adam A7 monitors
- > Korg microKorg
- > M-Audio Omni Studio USB interface

Software

- > Pro Tools 8 LE
- > Ableton Live 8

FAVOURITE GEAR

- > "Roland Human Rhythm Composer R8."



Soviet Holiday

iBORRACHO!

Contact: myspace.com/vivaborracho

This month has been all about the slamming Electro and here's plenty more of it. Hold onto your ears/trousers/mind.

The faux military parade feel of this one is a perfect vehicle for the marching, stomping, claps and jackboots-on-concrete kicks and snare. And the tiny glimmers of guitar (albeit mightily cut up in Ableton Live) give the track a new sonic weapon that many of this month's purely electronic tracks are lacking.

We've cranked this one up and your mids get a bit muddy. There really is so

much going on in that searing mid-zone. Likewise we're loving the wince-inducing top end while wishing there was a big more low end grunt to even it out.

But congrats for such an up-front mix. There isn't a single element that doesn't smack you in the face when it's introduced. Your barmy tambourines and hi-hats could maybe take a break from time to time (to let the highs in your sawtooth synths slice through) but if the truth be told, we like this one just the way it is. Viva Borracho! Long may your sonic violence continue!

The Artist



Names:

CDM & GRW

Where:

Toronto, Canada

This track: "It's

bi-polar Electro in the perpetual now."

Which part of the track are you most proud of?

"We're most proud of the abstract sound that proceeds every chorus. It's a guitar sound that been time-stretched in Ableton Live 8."

If we were to give you £5,000 for gear what would you spend it on?

"You know that converts into \$7675.78 Canadian dollars. And that is a lot of money! We'd get an RME Fireface 800 and an Adam Sub 2100. We are really interested in the Adam subwoofer because it can reproduce sounds all the way down to 20Hz. I wake up with cold sweats dreaming about the Adam Sub2100..."

What are you working on right now?

"We're working on our first Progressive House track. Experimenting with new sounds."

elements like Electro Bass, Hip Hop and Techno and jammed them together. The lyrics are about some crazy house parties I've gone to. Hence the title." We dig. Likewise we dig that lead line. "That's the Rapture synth with a stereo delay. The Techno bass was from Trilogy. I love the way they get together. I also really like my beat pattern for the verses especially the dirty kick I got using Nomad Blue bundle Driver DR25."

That's pretty deep, so what else are you using? "There's an HP laptop, Behringer BCF2000, Samson Rubicon R8A, Focusrite Saffire Pro 10, Korg K49 MIDI keyboard, Waldorf Blofeld and Octava MK-319 mic." That's a lot of hardware.

"That's nothing. For software I'm using Cubase 5, Spectrasonics Trilogy, Nexus, Rapture, NI Massive, Vanguard, SonicCharge Synplant, Autotune and the Waves Diamond Bundle." You can forget about the £5,000, mate. Looks like you don't need it at all!

Mayflies Moe Shinola

myspace.com/moeshinolamusic



"Mayflies started as an experiment using the freeware H4xx0r beatslicer from ArcDev Noise Industries," says Joe Schnebelen from Kansas, USA. "I liked the off-kilter beat so I spiced it up using Aquit Music's Hibx3000.1, Moppel's Tetra – both are freeware – and Cakewalk Studio Bass." Very cool. We approve.

"I particularly like the beat, which I made with H4xx0r. It maps

the loop out to about an octave on your keyboard and each key plays the same loop. If you tune some of the loops down exactly an octave and fiddle with the start and end points, some great accidents can happen." Excellent – keep 'em coming.

Princess At The Gate Imphenzia

imphenzia.com



"This track incorporates many of the elements that truly defines Imphenzia in terms of uplifting melodies, euphoric pads and piano along with morphing leads and a genuine beat," says it's maker Stefan Persson, Nynäshamn (just south of Stockholm), Sweden.

"I like the breakdown starting at 3:39 and especially as the additional layer is introduced at 3:50 onwards. In particular the virtual analogue lead along with the atmospheric effects and the introduction of the piano sound. I achieved this mainly through layering lavish instruments from Nexus2 and VanGuard by reFX.

You certainly sound like you know what you're doing. "Just the other day I released my fifth independent album on my website and I've already got my next track taking shape in the sequencer. I'm currently working on a track which is quite laid back and it has got some real retro feel to it.

"I use Intel QuadCore computer, a Roland FP-7 MIDI keyboard, Steinberg Cubase 5, Groove Agent One, reFX Nexus2, reFX Vanguard." Sweet. We love what you do – keep doing it! **FM**

Hot Pick



SELECTED KIT

Hardware

- > Gateway PC
- > KRK RP6 G2 monitors,
- > Numark Omni Control
- > Beyerdynamic DT 880 Pro Studio headphones
- > M-Audio Axiom 49 MIDI keyboard

Software

- > FL Studio 9 Producer Edition
- > Native Instruments Massive

FAVOURITE GEAR

- > "Got to be NI's Massive."



Swing Ya Ass! Blur The Technicolor

Contact: myspace.com/blurthetechnicolor666

Your magazine is great! I read it every month. To have my track featured on the

magazine would be a great achievement for me. Thanks!" Flattery, Carlos Alvaro Jacobo. will – of course – get you everywhere. But how would he describe his track? "This track is dirty! It's influenced by Breaks, Electro House, Fidget. It definitely has that big bass and bounce that will shake the dancefloor. In fact I am proud of the whole track but especially the bass sounds. I came up with them using Native Instruments' Massive which I love. On this track I

used Massive for everything you hear except the percussion and vocals."

Given the big sound sound on this track it doesn't seem like you'd need anything more. But what about the old £5,000 question? "If you were to give me £5,000 I would definitely get myself a desktop system, preferably a PC, a KRK RP10 Sub, Native Instruments' Battery, Izotope Ozone 4 and U-he Zebra." That's a nice set up.

"Right now I am currently working on more tracks that have this similar feel. More Breaks, Fidget, Electro House..." says Carlos. Sweet.

Unsigned and unloved? Get your tracks on these pages!

If you're an amateur music maker wanting to take the next step up then we want to help. Broadcast your music via the *FM* DVD and bravely subject your work to our expert advice!



1 Non pros please!

Are you unsigned, non MCPS or PRS registered and making music that you think could be something special? Then our *Demos* pages are for you. We're here to help and want to broadcast your work to *FM* readers around the world! If you're already making money and living the dream then thanks, but no thanks. Everyone else should head to futuremusic.co.uk our virtual home and blog site where you'll find regular input from the *FM* team.



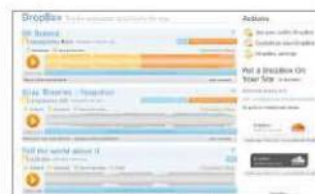
2 Look for the SoundCloud DropBox

We're big fans of SoundCloud, the online audio sharing service that let's you effortlessly pass around your audio to your friends or collaborators. SoundCloud lets you audition the audio in your drop box without the need to download it first – it plays in your browser with a click – making it the fastest and easiest way to get at audio files ever. Check out soundcloud.com to get your own SoundCloud box. Ours is on the right, just below the advert.



3 Click on the box and upload

Click on *FutureMusic's* SoundCloud DropBox then click on the big 'Choose files' button and upload your very BEST work. We haven't the time to wade through 12 tracks to get to the good ones! They need to be MP3s please. AND YOU MUST take the time to add a description – your name, address, band name, track name please – and give us your email address too! Include your track name and band name in any correspondence please!



4 Start work on that bio...

If your track is selected to be featured in the magazine we'll email you and ask you a whole bunch of questions such as your favourite gear, how you got your sound, you know – all the things you see us ask people! We're always up against one deadline or another here at *FM* so a rapid concise and easily understood reply to our questions is appreciated. Make sure you put your real name, artist name and track name on all correspondence!

Gear Chart

Are you giving your music a fresh kick? In the market for new kit? Finally putting together that dream set up? Then you'll need *FM's* exclusive guide to all our favourite gear

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Hardware Synths



Dave Smith Instruments Tetra | £552
Review FM219 Super Mopho meets cut-down Prophet '08 in this fantastic analogue polyphonic synth.



Dave Smith Instruments Prophet 08 | £1,499
Review FM194 A beast of analogue power. Warm, fat and wooden-ended – what more do you want?



Clavia Nord Wave | £1,395
Review FM196 If you liked the Nord Lead you'll love the Wave. It's more versatile and sounds fantastic.



Moog Taurus 3 | £2042
Review FM226 With more lows than an Eastenders omnibus, this beast will blow your socks off. Modern features make this a dream to use.



Roland Gaia SH-01 | £579
Review FM227 No menus with hands-on controls all over. Despite the rosey presets, Roland are starting to get back to what they do best.

Soft Synths



FXpansion D.CAM Synth Squad | £179
Review FM217 A powerful synth collection from FXpansion, favoured by Electro House heroes.



Rob Papen SubBoomBass | £89
Review FM215 Another superb synth from Rob Papen that caters for all your bass-in-your-face needs.



Spectrasonics Trilian | £215
Review FM224 A long-awaited update to the monster of all bass software. An instant classic.



Arturia Jupiter 8V | £150
Review FM189 One of the definitive, all-time great polysynths is now a plug that delivers thunderous bass as powerful as its searing leads.



u-he Zebra 2.1 | \$199
Review FM183 Subtractive and analogue synthesis with an ultra-phat sound. Ideal for shaking ground and wrecking speakers. In a good way.

MIDI Controllers



Novation LaunchPad | £149
Review FM220 Great features at an amazing price make this Ableton controller a performance dream.



Akai APC20 | £170
Review FM227 A more compact, better-value version of Akai's Ableton front end. Robust build and great features make this very gig-worthy.



Livid Instruments Block | £349
Review FM223 Built out of wood and metal, the Block is a great alternative to the more mainstream controllers.



Native Instruments Kontrol X1 | €199
Review FM223 An intuitive, well-built controller at a great price. If you're a Traktor user, try this.



Vestax VCM-600 | £649
Review FM216 A fantastic way to control Ableton Live. Vestax deliver a well built, fun and feature packed DJ style performance controller.

How Our Chart Works

We've fought, bitched, whinged and racked-up all our favourite gear that's available today into our Gear Chart. If it makes an appearance on these pages, then it's well worth a look. We've appraised the hardware in terms of its price point, performance and usability, along with the fond memories and sheer joy factor of cranking it up for the first time. We're not saying that keyboard number six is 'better' than keyboard number seven, for example. We're saying that you should have a think about the music you want to make, read our recommendations below, and check out the gear that sounds cool. Each month we'll be updating our charts with new finds and introducing new lists to keep things fresh. Special mention to the Digital Audio Workstation bit at the back, which should help you nail your ideal recording solution. We out.

The FM Awards

Editor's choice. If you see this little flag tagged on to one of our reviews it's impressed us above and beyond the usual excellence.

Platinum. Buy these. Unless you've got a perfectly good alternative or produce your music on comb and paper.

Value. A special chapeau to bits of gear that deliver the goods without breaking the bank. Value awards mean great gear at even better prices.

The Charts This Month...

120	Hardware Synths	From two-octave upstarts to two-grand monsters
120	Soft Synths	Our pick of sound-producing software
120	MIDI Controllers	The best performance and studio controllers in town
122	Monitors	Record, mix and master with confidence
122	Keyboard Controllers	Everything you need from portables to studio staples
122	Audio Interfaces	Get audio into your computer with quality and style
122	Effects and Mangers	Warp your sound and break new ground
124	Performance Samplers	Take control of your audio live and direct
124	High-end Audio Plug-ins	Treat yourself to the best that money can buy
124	Field Recorders	Record your band or go searching for found sound
124	Microphones	The best mics around for everyone's budget
125	eBay Classic Retro Finds	Keep an eye out for our suggested list of nostalgic love
125	Ways To Stand Out	Dare to be different and reap the rewards
125	Digital Audio Workstations	Which DAW is best for the music you want to make?

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Waldorf Blofeld Keys | £699

Review FM211 A huge amount of exciting presets and solid good looks make for a killer all-round synth.



Korg microKorg XL | £439

Review FM210 This fresh update of everyone's favourite mini-synth gives a new engine and a great vocoder.



MFB Kraftzwerg | £580

Reviewed FM219 German-built modular synthesis on a budget. Prepare to get addicted to analogue with this flexible patch-happy synth.



Doepfer Dark Energy | £398

Review FM223 A good introduction to modular analogue synths, in a lovely wooden-edged box. Nice!



Korg microStation | £528

Review FM227 A mini-keyed workstation that delivers on quality while still being fun. Works well both on-stage and in the studio..



Spectrasonics Omnisphere | £299

Review FM207 Great sounding, flexible and unique, this is truly a powerhouse of sound design.



U-he Ace Synth | £69

Review FM227 At such a low price, you can't go wrong with this software modular synth. Patches are clear and crisp and it's all very fun to use.



Waldorf Largo | £175

Review FM217 Waldorf take their Blofeld sound and technology and create a powerful and unique soft synth. Check it out.



Native Instruments Absynth 5 | £179

Review FM220 The super soundscape synth with a much improved feature list and GUI.



Lennar Digital Sylenth1 | £139

Review FM208 This simple-to-use, Virus-like synth comes packed with a great set of presets.



Novation Nocturn | £69

Review FM199 Once you integrate this Automapping wonder into your studio, you'll wonder how you lived without it.



Akai APC40 | £400

Review FM215 Although there's still a few things that could be addressed, this is still the best option for performing with Ableton Live.



Akai LPD8 & LPK25 | £45 each

Review FM224 A better keyboard design and build than its rivals. Shame about the short throw rotaries.



Korg nanos | from £36

Review FM209 The keyboard let's the series down, but these portable controllers are still a bargain. They're bundled with great software, too.



Behringer BCF-2000 | £140

Review FM153 Eight 100mm motorised faders for such a low price, this is still a great controller.

Gear Chart

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Monitors



Event Opal | £2,498

Review FM215 Easily the best active monitors you can get for this price. Our reviewer bought a pair and the rest of the FM team want a pair too!



Focal JM Labs Twin 6 BE | £829 each

Review FM206 These are some of the best sounding speakers we've ever heard. Worth every penny.



Genelec 8040 | £1,000

Review FM181 Genelecs are always a favourite with FM and most of our experts use them so it's no surprise that we love these.



Samson Rubicon R5A | £235

Review FM181 Trustworthy for reference monitoring but priced at an unbelievable level. Get some in.



Acoustic Energy AE22 | £899

Review FM201 For accurate mixing, these are one of the best sets we've used. Very highly recommended.

Keyboard Controllers



M-Audio Axiom Pro 49 | £318

Review FM216 Our reviewer found this to be the most tightly integrated DAW controller ever.



Novation Nocturn 25 | £190

Review FM221 A well-rounded well-priced controller that does plenty of great work with Automap 3.3.



Korg Kontrol 49 | £319

Review FM160 Great keys and pads, and its looks and build elevate this above the competition. But there are easier to set up controllers out there.



Akai MPK49 | £299

Review FM197 A well made deck that's the control section from the legendary MPC with 49 keys strapped to the front. Sleek.



CME VX5 | £499

Review FM192 It's built like a tank and adds some awesome motorised faders into the mix. An excellent professional choice.

Audio Interfaces



M-Audio ProFire | £359

Review FM202 A brilliant interface that includes the great Octane Mic Pres, making it a superb recording solution at an amazing price.



MOTU Traveler | £795

Review FM177 Came out on top in our FireWire group test. Enough outs and ins for any project studio and still portable too. A real all-rounder.



Apogee Duet | £329

Review FM200 Getting the quality Apogee sound on the move is now easier than ever thanks to this tiny silver wonder.



RME Fireface UC | £746

Review FM219 Robust reliability, rock-solid build quality and the trusted RME sound. Plus it's now on a lovely USB connection.



Metric Halo ULN-2 DSP | £1,279

Review FM206 Great sound, onboard DSP and some of the best pres we've ever heard inside an interface.

Effects Plug-ins and Sound Manglers



Rodec / Sherman Restyler | £649

Review FM219 A live filter that sounds good enough for the studio. Missing MIDI, but worth a look.



Moog MoogerFooger MIDI MuRF | £419

Review FM220 The old MuRF filters combine with the attractive features of MIDI and software patch editing.



Peavey ReValver MkIII | £179

Review FM208 This amp-modelling software let's you delve deep into the amps circuits for true soft-modding.



Native Instruments Guitar Rig 4 | 179 Euros

Review FM221 A stack of new amp and microphone models make this a tasty upgrade at a great price.



Electro-Harmonix Voice Box | £160

Review FM213 Give this a decent input and it will output robot voices or perfect harmonies with ease.

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**PMC DB1S-AII** | £2,056

Review FM225 You get what you pay for with these monitors. Adding a PMC sub will help you feel the real bottom end though.

**KRK Rokit RP5 G2** | £270

Review FM205 These are so nice to work with our reviewer bought a set for his own studio. Great value monitors with a great punch.

**Adam A5 Studio Monitors** | £499

Review FM209 Though they're at the budget end of the Adam range, these compact near-fields still deliver.

**APS IO Active Monitors** | £919

Review FM216 These provide an honest listening experience that could threaten the big boys.

**Focal Professional CMS65** | £1,230

Review FM215 The natural and detailed sound of Focal, delivered in a compact and affordable package.

**Edirol PCR500** | £200

Review FM189 Great-looking, sturdy, Roland-style 'board. Laden with controls and a cool software editor for making set-ups for all your plugs.

**Novation 49SL Compact** | £269

Review FM193 The stripped-down alternative to a full-size SL. Cheaper, but still packed with unique features.

**Akai MPK88** | £600

Review FM226 A few minor issues considering the high price, but a great weighted hammer action keyboard redeems this controller.

**M-Audio Mid Air 25** | £199

Review FM181 Not only can you sling it in a bag, but you can also stride to the front of the stage thanks to its wireless power too.

**Korg microKontrol** | £275

Review FM143 Great build quality and looks and while its reduced-sized keys are an acquired taste, it's certainly more portable as a result.

**Novation nio 2/4** | £149

Review FM196 Well-built, jack-of-all trades portable solution for guitarists, producers and DJs. Complete with an awesome software bundle.

**Mackie 1220i** | £799

Review FM224 This hybrid mixer and interface covers all recording bases in a neat package, with the added benefit of Pro Tools compatibility.

**Focusrite Saffire 6 USB** | £163

Review FM225 A fantastic interface for the studio or for anyone looking to get into digital DJing or Ableton Live

**Presonus FireStudio Mobile** | £269

Review FM224 Not the cheapest mobile interface, but great I/O make it worth a look.

**Steinberg C12** | £226

Review FM222 A tidy package that works well as an introduction to the DAW recording environment. But, lack of MIDI let's it down.

**Boss SL-20 Slicer** | £175

Review FM205 There are many ways of chopping up audio, but this convenient stomper will work both live and in the studio.

**OTO Biscuit** | £529

Review FM225 Gorgeous design details and fantastic for anyone who fancies a bit of lo-fi 8-bit computer game crunch in their music.

**TC Helicon VoiceTone Synth** | £225

Review FM221 A few teething problems, but this is still a fantastic hardware vocoding and tuning tool.

**Audioease Speakerphone 2** | £400

Review FM217 This creative and comprehensive speaker emulator adds air to your sounds and mixes.

**Avid Digidesign Eleven Rack** | £789

Review FM222 It's a guitar processor that makes re-amping a breeze. Plus it's a Pro Tools interface to boot!

Gear Chart

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Performance Samplers



Korg microSampler | £436

Review FM219 Easy to use sampling with some clever extras. Another micro-dominator from Korg.



Akai MPC 5000 | £1,549

Review FM203 The 5000 isn't perfect, but it's without a doubt the best pad-ridden studio-in-a-box on the market. Check it out.



Roland SP-555 | £410

Review FM195 The latest in Roland's line is packed with features. A durable and flexible partner for the loop experimentalist.



Roland SP-404SX | £289

Review FM220 This new update tweaks the original SP-404 but lacks anything really special, so it doesn't climb any places in our chart.



Electrix Repeater | £649

Review FM117 Used by our current fave Imogen Heap for building whole tracks, this discontinued unit still has a healthy second hand market.

High-end Audio Plug-ins



Celemony Melodyne Editor | £319

Review FM222 A plug-in that has the potential to change music production forever. A killer tool for every genre.



Lexicon Native Reverb Bundle | £1,174

Review FM225 The motherload of all reverbs brings the original digital algorithms straight to your DAW.



Pro Audio DSP DSM | £200

Review FM226 An incredible multi-dimensional EQ and dynamics processor that works magic!



UAD 4K SSL Plug-ins | from \$199

Review FM215 Brilliantly modded pieces of SSL goodness that are begging to be on your UAD card..



Brainworx BX Digital | €398

Review FM200 There's no other plug-in quite like BX's top of the line mastering tool – incredible software.

Field Recorders



Tascam HD-P2 | £729

Review FM186 Built to last and definitely the pro's choice. A multitude of formats and mic settings and superlative sound too.



Roland R-09HR | £259

Review FM204 This flagship recorder will produce crystal clear, 24-bit 96kHz recordings, all from the palm of your hand.



M-Audio MicroTrack II | £229

Review FM202 Not only does this new version look better, but it's also cheaper. A superb update.



Yamaha PocketTrak | £260

Review FM202 This ultra-compact 2GB recorder is a really useful weapon in your recording arsenal.



Edirol R-44 | £499

Review FM205 Record four tracks simultaneously via its quality pre-amps. If you need the flexibility it does the lot and more besides.

Microphones



Newmann Retro NR47 | £999

Review FM225 Despite the choice of name, this mic definitely delivers the classic sound. Bargain.



sE X1 and Project Reflexion Filter Bundle | £169

Review FM223 Unbelievable value for a robust recording solution.



Blue Bottle Rocket Stage One | £600

Review FM222 Interchangeable capsules make this great sounding mic even more of a must-buy.



NEW ENTRY

Sontronics Saturn | £699

Review FM227 It looks drop-dead gorgeous and has a flexible airy sound that suits many different recording situations.



AKG C214 | £450

Review FM205 As part of the classic AKG family, this mic sets itself up nicely to be a recording bargain that holds its own around the studio.

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eBay Classic Retro Finds

**Roland HS-60** | £250

Released 1984 Same guts as the Juno-106 but the ugly built-in speakers mean it's often overlooked.

**Korg EX800** | £100

Released 1984 This rack-mount version of the Poly800 has a similar sound to the Roland Juno but with the added bonus of a sequencer.

**Yamaha MK-100** | £30

Released 1983 Bargain analogue style workstation that has limited synthesis options but a great programmable drum computer.

**Yamaha TX7** | £80

Released 1983 With DX7s back in vogue, get your hands on the true hardware sound at a fraction of the price with this desktop module.

**Sequential Circuits Multi-Trak** | £250

Released 1984 Easier to program than a Six Trak with a better sequencer – a gem find.

Ways To Stand Out

**Snyderphonics Manta** | £398

Review FM218 Space-age-style control with incredible good looks and amazing control possibilities.

**Yamaha Tenori-on** | £599

Review FM193 The amazing lights-in-a-frame synth 'n' sequencer that'll test the way you think about music. Grab one while stocks last.

**Jazz Mutant Lemur** | £1,799

Review FM166 Techni-coloured touchscreen controller. Why not put a camera on it feeding a projector?

**Percussa Audio Cubes** | 399 Euros

Review FM207 Expensive, but one of the ultimate ways to stand out when performing electronic music.

**Moog Etherwave Theremin** | £300

Review FM207 Even 50 years on, people will still gawp as you flail your arms around making Sci-Fi sounds.

Digital Audio Workstations

Best all-in-one solution

**Logic Studio** | £399

Review FM218

The home studio regular and all-in-one studio package goes V9.1 adding 64bit support – if your Mac can handle it.

Best features include:

- > Incredible time-stretching with Flex Audio technology.
- > New amp designer and pedal board options for guitarists.
- > The best and biggest range of 'built-in' plugs and synths of our favourite DAWs.

Good and bad:

Fantastic Flex Audio raises Logic's appeal even further and despite that stealthy price increase to £399 it remains a bit of a bargain all told.

Best combo of ease and power

**Cubase 5** | £499

Review FM212

Cubase 5 sees Steinberg lower the price and raise the plug-in and feature list. VariAudio, Batch Export and new effects plug-ins all come bundled with 5.

Best features include:

- > The new VariAudio Melodyne-style pitch editor.
- > Plenty of built-in plugs to get you creating professional tracks from the moment you install the software.

Good and bad:

Although Cubase is playing catchup in terms of both bundled content and price, it's can't be argued that it's only getting better. Loyal Cubase users rejoice – Cubase 5 is a winner.

Best for recording audio

**Pro Tools 8** | £319

Review FM210

The industry standard DAW gets a fresh modern update with a brand new GUI, enhanced MIDI editing capabilities, and a heap of new instruments and plug-ins.

Best features include:

- > For mixing, recording, processing and editing audio there isn't anything easier to use or more stable and reliable.
- > Now that it's MIDI is finally up to scratch, it's a great choice.

Good and bad:

Great performance and stability with tempting upgrade offers to a HD system. Well-conceived though limited plug-ins.

Best for jamming and creating

**Ableton Live 8** | £315

Review FM214

Bigger and better than ever. If you like chucking loops together and experimenting then this is for you. Flexible and creative, it'll spark ideas you wouldn't otherwise have.

Best features include:

- > Instantly beat-match any audio and trigger samples in time. DJs can use this instead of decks.
- > Flexible routing and modulation options let you mess and mangle.

Good and bad:

It's a dream for mixing and messing. It's getting a little costly (thanks to that bulging library content) but the cheaper versions remain a bargain and a real studio essential.

Best bangs for your bucks

**Sonar 8** | £349

Review FM207

Updated from the much loved Sonar 7, this new version adds even more features and amazingly puts less pressure on your CPU due to a streamlining of it's core. It's a firm favourite with PC-based producers.

Best features include:

- > Beatscape – a fantastic slicing and warping groove-based beat and drum machine.
- > The TS-64 Transient Shaper is a simple but brilliant plug-in addition.

Good and bad:

A continuous effort to streamline and an incredible amount of features make Sonar 8 a great choice DAW on PC.

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